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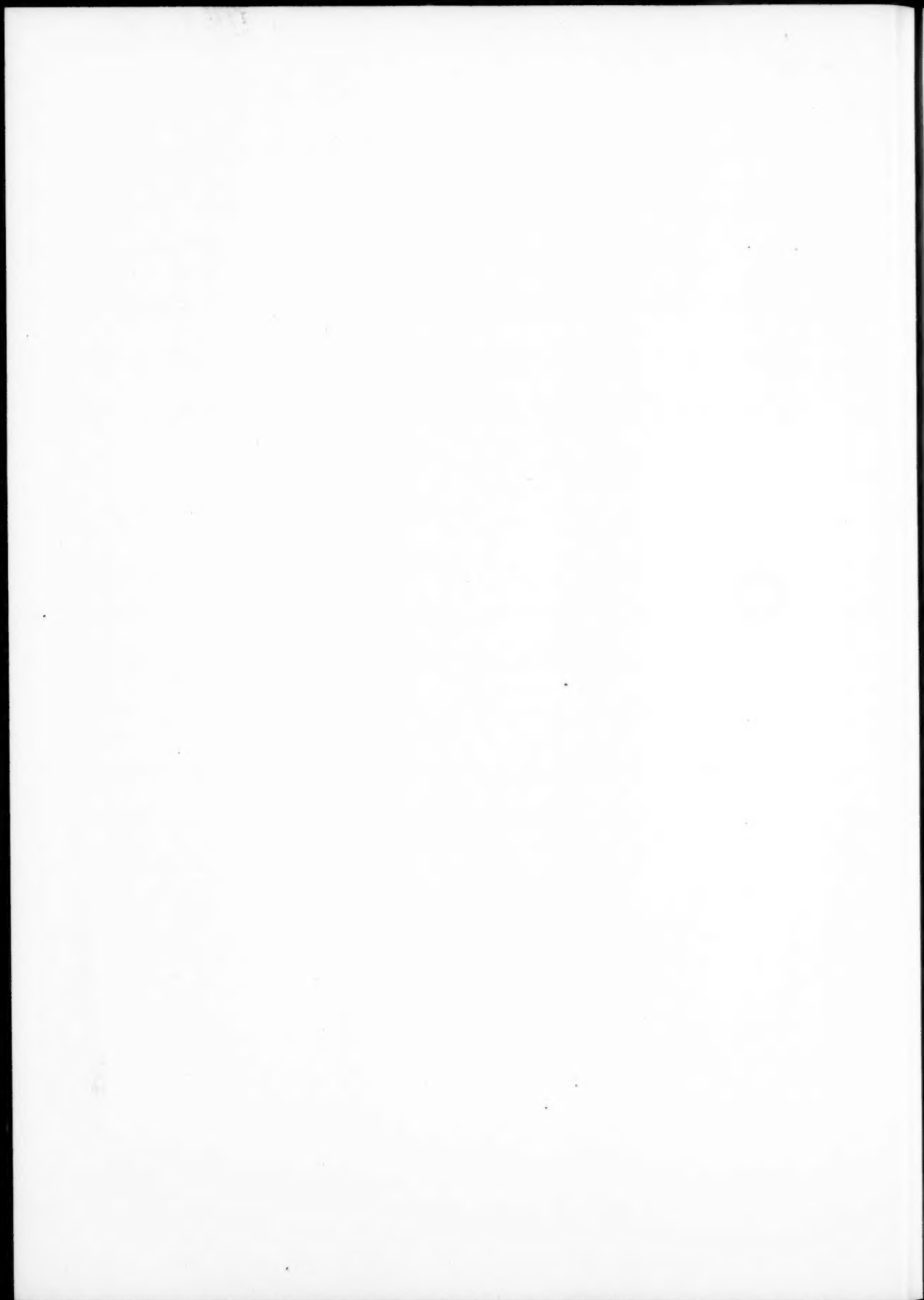
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ARCHAEOLOGICAL NOTES

FIVE BRONZES RECENTLY ACQUIRED BY THE METROPOLITAN MUSEUM

FIVE bronzes — three statuettes, a plaque and a jug — have recently been acquired by the Metropolitan Museum. As each has a special interest they are herewith briefly described and discussed.

1. A geometric statuette of a helmet-maker (figs. 1-4).

The statuette¹ may be assigned to the late eighth or early seventh century B.C. Though the figure is summarily worked in the style of the geometric period, the action is nicely indicated. The craftsman is sitting on the ground and grasping a helmet by the cheekpiece, ready to strike it with a mallet (of which only the handle is preserved); his right foot is on the anvil-support to keep it steady. He is forging the helmet, not decorating it; for he has no punch or chisel in his left hand.

The forms of the figure are those familiar from late geometric art — a triangular body, a narrow waist, and a flat face with small features. Instead of a stiff, erect figure, such as is usual in this period, we have here a complicated pose in which the movement of the limbs is successfully suggested. The crested helmet is of the early Corinthian type, with nosepiece, straight back and forward curving crest (the end is perhaps broken off), similar to that worn by a geometric warrior from Olympia.²

I believe this is the earliest Greek helmet-maker known and the only one extant in the round.³ The well known scene on a red-figured kylix in Oxford of a man finishing a helmet with a file⁴ (fig. 5) is two centuries or more later, and the helmet-makers on other monuments are mostly later still.

The Greek word for a helmet-maker is *κρανοποιός* and helmet-making was apparently an occupation in itself. In Aristophanes' *Peace* (1250 ff.), when the war is suddenly over, the helmet-maker is chagrined, for he can no longer sell his wares.

There were several types of anvils in use in ancient times,⁵ just as there are today.⁶ The anvil used by the geometric helmet-maker is a stake anvil with rounded top. That of the fifth-century helmet-maker (fig. 5) is a block anvil with flat top. Another

¹ Acc. no. 42.11.42. Ht. $2\frac{1}{16}$ in. (5.2 cm.); length 2 in. (5.1 cm.). The left foot was broken off and has been reattached. Nothing is known of the provenance, except that the bronze was in the possession of a London dealer about 1937.

² Furtwängler, *Olympia* iv, pl. XV, no. 247; Lamb, *Greek and Roman Bronzes*, pl. XV, c; Kukahn, *Der Griechische Helm*, p. 25. Compare also the miniature bronze helmet from Praisos, Benton, *BSA*, xl, 1939-40, pl. 31, 17.

³ For discussions of Greek and Roman metalworkers and their tools, cf. especially Blümner, *Techn. and Term.* ii, pp. 188 ff., and iv, pp. 302 ff.; Jahn, *Berichte der sächs. Ges. der Wissensch.* 1861, pp. 291-374; 1867, pp. 75 ff.; 1870, pp. 263 ff.; *D.S. s.v. caelatura, ferrum, incus*, etc.; Gummerus, *JdI*, xxviii, 1913, pp. 63 ff.; Hauser, *FR.* iii, pp. 81 ff.; Beazley, *CVA*, Oxford, fasc. I, p. 6. For representations of metalworkers on gems cf. Furtwängler, *Geschnittene Steine*, nos. 514 ff. and *AG*, pl. XVI, 58; Lippold, *Gemmen und Kameen*, pl. 57. For Egyptian metalworkers cf. Klebs, *Die Reliefs und Malereien des neuen Reiches*, 1934, pp. 107 ff.; Davies, *The Tomb of Rekh-Mi-Rê at Thebes*, pp. 52 ff.

⁴ Beazley, *CVA*, Oxford, fasc. I, pl. II, no. 8; *Attic Red-figured Vase-Painters* p. 231, no. 22. By the Antiphon Painter; about 480 B.C.

⁵ On ancient anvils cf. Blümner, *op. cit.* ii, pp. 188 ff.; Couvreur in *DS.* iii, s.v. *incus*, pp. 460 ff.

⁶ I want to thank L. Heinrich of the Armor Department in the Metropolitan Museum for help in these technical notes. Many of the interpretations here given follow his suggestions.



FIG. 1



FIG. 2



FIG. 3



FIG. 4

FIGS. 1-4.—BRONZE STATUETTE OF A HELMET-MAKER, GEOMETRIC PERIOD
(Courtesy of the Metropolitan Museum of Art)



FIG. 5.—YOUTH FINISHING A HELMET,
ON A KYLIX IN OXFORD
Photograph by Marie Beazley

type was the rod anvil, which had the advantage that it could be turned at will, whereas block and stake anvils were stationary.

The rod anvil was well known in Egypt ⁷ (cf. fig. 6). I know two representations of it from the classical period.⁸ One is on a sard, from the Beatty Collection, now in the Metropolitan Museum ⁹ (fig. 7). It is probably Italic work of the first century B.C. In spite of the small scale and the cursory execution every detail is clearly conveyed. A man is sitting on a stool or bench engaged in decorating a bowl with mallet and punch. The bowl is placed upside down on a mould (that is, a die or matrix), which is attached to a rod anvil similar in type to those in Egyptian paintings;¹⁰ but the rod is fastened apparently to the seat instead of to a separate support. The bowl is kept steady on the mould by a clamp. In our discussion of the technique of the silver bowl in the Metropolitan Museum ¹¹ we deduced the ancient use of such clamps from modern practice; here is an actual representation of one—the first known, I think.

Another rod anvil appears on an Etruscan scarab ¹² (fig. 8). A youth is represented seated on a stool, holding a helmet by the neckpiece in one hand, in the other a mallet. The rod here rises from a rectangular support. As the youth is holding a mallet, not a punch, he is not decorating the helmet. Apparently he is rolling out the nape, for its curvature corresponds with that of the anvil.

Still another type of anvil—with legs and a projecting horn—appears on a bronze plaque in private possession (fig. 10).¹³ Here a youth is sitting on a stool ¹⁴ in front of the anvil, a short mallet in one hand, a punch in the other. He is bending over, absorbed in decorating a metal vessel, the mouth of which is fitted over the horn of the anvil. A strap which passes from the neck of the vessel to the youth's foot keeps the utensil in place and leaves both hands free for work. Though ancient representations of anvils with horn-like projections are known,¹⁵ this relief is the first one which shows a workman actually using it. It was a familiar form in the Renaissance (cf. fig. 9) ¹⁶ and is in use also today, being employed for just such work as the youth on our relief is doing. The leg-like supports also occur today.^{16a} The style of the

⁷ Klebs, *op. cit.*, p. 111, fig. 79. Mrs. Klebs described the process as follows: "Auf einem Amboss, der auf einer Holzunterlage ruht, wird ein Metallstück solange in der Mitte geschlagen, bis sich erst eine Beule bildet, die dann zu einem Gefässboden erweitert wird. Darauf wird das Gefäss auf eine oben etwas gebogene Stange gestülpt, diese durch eine dicke Metallöse gesteckt, die ihrerseits mit den 2 Enden im Boden befestigt ist. Dadurch bekommt die Stange einen festen Halt und kann doch nach Belieben gedreht werden, so wie der Arbeiter sie als Unterlage für seinen Schlag braucht, denn über ihr hat er nun sein Gefäss zu bilden, indem er es durch Hämmern in die gewünschte Form treibt." Cf. also Davies, *loc. cit.*

⁸ Neither Blümner nor other writers on Greek and Roman anvils have to my knowledge envisaged rod anvils. ⁹ Richter, *Ancient Gems from the Evans and Beatty Collections*, no. 51.

¹⁰ Cf. e.g. Klebs, *loc. cit.* and Davies, *op. cit.*, pls. III, LV, and *The Tomb of two Sculptors at Thebes*, pl. XIII.

¹¹ *AJA.* xlv, 1941, p. 376.

¹² Furtwängler, *AG.* pl. XVI, 58; Lippold, *Gemmen und Kameen*, pl. 57, 13.

¹³ Ht. 2¼ in. (5.6 cm.); width 1½ in. (3.8 cm.).

¹⁴ For such simple stools, four and three-legged, cf. Richter, *Ancient Furniture*, p. 37; for their Egyptian prototypes cf. e.g. our fig. 6.

¹⁵ Blümner, *op. cit.* ii, p. 189, fig. 30 a; Couvreur, *op. cit.* p. 462, figs. 4038, 4039.

¹⁶ In the Metropolitan Museum, acc. no. 21.125.1; B. D(ean), *BMMA.*, 1915, p. 126 f. Cf. also Treitzsaurwein and Burgmair, *Weisskunig*, 1775, p. 97, pl. 42.

^{16a} For an ancient parallel we may perhaps cite the "table" on the relief from the Akropolis, Dickins, *Catalogue* p. 117, no. 577, which has a similar support and may be an anvil of a metalworker; but there is no visible horn-like projection.

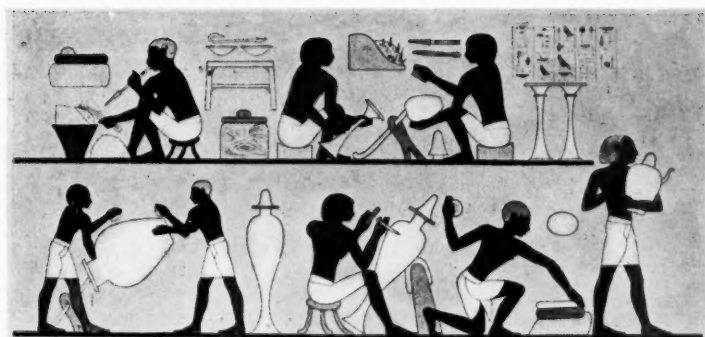


FIG. 6.—EGYPTIAN WORKMEN FORGING METAL VASES. RELIEF FROM THE TOMB OF REKH-MI-RE AT THEBES. XVIII DYNASTY
(L. KLEBS, *Die Reliefs und Malereien des neuen Reiches*, p. 111, fig. 79)



FIG. 7.—MAN DECORATING A METAL BOWL. IMPRESSION FROM A SARD RINGSTONE. FROM THE BEATTY COLLECTION



FIG. 8.—HELMET-MAKER, ON AN ETRUSCAN SCARAB
(Lippold, *Gemmen und Kameen*, pl. 58, no. 13)



FIG. 9.—IRON ANVIL WITH PROJECTING HORN, RENAISSANCE PERIOD



FIG. 10.—YOUTH DECORATING A BRONZE HYDRIA. GREEK BRONZE PLAQUE IN PRIVATE POSSESSION

relief suggests Greek execution of the second half of the fifth century. The plaque was cast, not hammered, for it is smooth at the back. The original edges at right, left, and bottom show that the relief is complete and not part of a larger composition; at the top it was evidently broken from something. It is slightly curved both vertically and horizontally and would fit the curvature of a vase; so it might have been the lower attachment of a vase handle. At the back are remains of silver solder.

The Greek word for anvil is ἄκμων, for anvil support ἀκμοθέτης (Homeric ἀκμόθετον).¹⁷ We do not know the specific Greek words for the block, stake, and rod anvils, or for anvils with projecting horns.

2. An archaic Greek statuette of an Arcadian shepherd (figs. 11-13).

The statuette of a shepherd¹⁸ is an attractive addition to a well-known group of Arcadian bronzes, which were evidently produced by local artists to serve as offerings in sanctuaries.¹⁹ They have a rustic, spontaneous character and give a good picture of the shepherds and peasants who roamed the mountains of Arcadia in the sixth century. Our new example represents a stocky, bearded man, holding a ram and a mug, perhaps filled with milk, which he is bringing to a local deity. He wears a pointed hat (pilos) over his short straight hair, and a heavy cloak which is fastened in front with a long pin and is decorated along the side edges with a border ending in pendants at the lower corners. The statuette is so lifelike, as well as typical, that it seems to have been made from direct observation, especially the back view.

I think we know both the shepherd's name and that of the deity, for a dedication is incised on the moulded base (fig. 14). It starts out with large, bold letters, whereas the concluding ones are crowded together and consequently hard to read. The corrosion of the surface adds to the difficulties. But we have read the inscription, tentatively and perhaps correctly, as Γάνι Αἰνεας, "Aineas to Pan"²⁰ (cf. fig. 15 where the letters as we have made them out are gone over in ink). Aineas as an Arcadian name is known from Xenophon and perhaps from Pindar,²¹ but the name is rare outside the Peloponnese.

Inscriptions on Arcadian bronzes are rare. Another example is that on a bronze statuette in New York, an offering by Phauleas, also to Pan: ²² Φαυλεας ἀνεθυσεν τοι Γάνι. To judge by the style of the statuettes—which have many points of similarity—Phauleas and Aineas both lived in the latter part of the sixth century.

3. A late archaic Greek statuette of a dancing satyr (figs. 16-18).

¹⁷ Blümner, *op. cit.* ii, p. 188 f. and the references there cited.

¹⁸ Acc. no. 43.11.3. Ht. $3\frac{5}{8}$ in. (9.2 cm.). Bent and broken at the ankles and repaired. The surface is much rubbed. Nothing is known of the provenance, except that, like the geometric helmet-maker, it was once in the London market.

¹⁹ Lamb, *BSA*. xxvii, 1925-1926, pp. 133 ff., and *Greek and Roman Bronzes*, pp. 91 ff.

²⁰ The oblique stroke joining the ν and ι (which we have dotted in fig. 15) appears to be original and must be explained away as a mistake. Perhaps the inscription continued on the front with a verb, ἀνέθυσεν or ἀνέθηκε, but the surface is too corroded for certainty.

²¹ Xenophon, *An.* 4, 7, 13; *Hell.* 7, 3, 1; Pindar, *Ol.* vi, 88 (cf. Bölte in *RE* s.v. *Stymphalos*, col. 446); Hug, *Aeneas von Stymphalos*, Zürich, 1877, p. 43 f.

²² Richter, *Catalogue of Bronzes in the Metropolitan Museum*, no. 58.

²³ Acc. no. 43.11.1. Ht. $2\frac{3}{4}$ in. (6.2 cm.). The right forearm, the right leg below the knee, and the left foot are missing; also perhaps part of the tail. Corroded in places. The pubes is indicated by incised segments. Again nothing is known regarding the provenance, except that it was once in the possession of the art dealer in London who owned the helmet-maker and the Arcadian shepherd.



FIG. 11



FIG. 12

FIGS. 11-13.—BRONZE STATUETTE OF AN ARCADIAN PEASANT
(Courtesy of the Metropolitan Museum of Art)

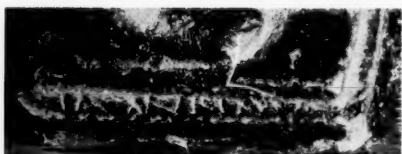


FIG. 14.—INSCRIPTION ON BASE OF STATUETTE
SHOWN IN FIG. 11, ENLARGED



FIG. 15.—INSCRIPTION SHOWN IN FIG. 14
WITH GROOVES REINFORCED IN INK



FIG. 13

The statuette of a dancing satyr ²³ is also late archaic, probably of the first quarter of the fifth century. In his rhythmical movement he recalls the dancing satyrs by the Brygos Painter, though he has not the same abandon. The pose, with extended arms, one leg lifted and head raised, is extraordinarily lifelike and the face has a dreamy look as if he were dancing to music. His exertion is making his ribs protrude.

4. An Etruscan plaque with a relief of a collapsing Amazon (fig. 19).

The relief of a collapsing warrior on a bronze plaque is another attractive late archaic work.²⁴ The figure wears a short chiton and a cuirass with an incised lotos ornament on the chest; also greaves with dots along the edges to indicate holes for fastening the leather lining. Evidently an Amazon is intended, for a battle-axe is lying on the ground and there is a slight indication of breasts. Her side has been pierced by a spear, which she is trying to extract with what remains of her strength. The wooden shaft of the spear is broken and the long, splintered end extends downward along the edging of the relief. Her shield is still strapped on her limp left arm. The helmet has fallen from her head; it is a crested, plumed Attic helmet with neckpiece and upturned cheekpieces. The whole complicated design is compressed into the small area of the plaque with practically no spaces left empty.

The plaque is complete on three sides, but broken at the top. Evidently the object of which it formed part extended upward between the two little volutes which act as finials of the moulded edge. Traces of silver solder remain on the back, so the object was evidently attached to something. The curvature is unusual in being slightly concave from top to bottom, instead of convex. It therefore must have fitted on something which was similarly concave (see below).

5. An Etruscan jug (figs. 20-22).

This beaked, concave-bodied jug ²⁵ shows what the object was on which the plaque we have just described fitted; for it has a similar plaque still in place. The jug is in good preservation, complete with handle, and enables us to identify the other plaque as the lower attachment of a curving handle. Vase and handle form a live composition, full of swing and movement.

The two plaques, though similar and of practically the same size, are not identical (cf. figs. 19, 20). The one on the jug is more cursorily worked, and shows slight variations; for instance, the helmet has no plume, the spear shaft does not extend all the way down, the toes are not marked, etc. In pre-Hellenistic times no exact replicas were cast from one mould.²⁶ Each piece was modelled afresh in wax and cast, and so was an original work. It was only later, from the late fourth century on, that a mould was taken from the original model and several replicas were made, in the same manner as today.

In Jacobsthal and Langsdorff's book on *Bronzeschnabelkannen* 1929, pp. 47 ff., the decorative motives which occur on Etruscan late archaic beaked jugs are listed. They include palmettes, heads or foreparts of satyrs, sirens, etc. The collapsing Ama-

²³ Acc. no. 43.11.5. Ht. 1 $\frac{3}{4}$ in. (4.5 cm.), width 1 $\frac{5}{16}$ in. (3.3 cm.). It is said to have been found near Orvieto.

²⁴ Acc. no. 44.11.4. Ht. 9 $\frac{7}{16}$ in. (24 cm.); greatest width w. handle 6 $\frac{1}{4}$ in. (15.9 cm.); diameter at bottom 5 $\frac{1}{16}$ in. (12.9 cm.).

²⁶ Pernice, *JOAI*, vii, 1904, pp. 154 ff.



FIG. 16



FIG. 17



FIG. 18

FIGS. 16-18. — BRONZE STATUETTE OF A DANCING SATYR
(Courtesy of the Metropolitan Museum of Art)



FIG. 19. — BRONZE PLAQUE WITH A
COLLAPSING AMAZON
(Courtesy of the Metropolitan Museum
of Art)



FIG. 20. — ATTACHMENT OF HANDLE
ON JUG SHOWN IN FIGS. 21-22



FIG. 21



FIG. 22

FIGS. 21-22. — BRONZE JUG WITH A HANDLE ATTACHMENT SIMILAR TO THAT SHOWN IN FIG. 19
(Courtesy of the Metropolitan Museum of Art)

zon of which we now have two examples is not included and is apparently a motive not before known.

Jacobsthal²⁷ dated these jugs in the first half of the fifth century. That is doubtless the period also of our relief and jug. The style is late archaic; but we know that the archaic style continued in Etruria at least until the middle of the fifth century.²⁸

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²⁷ *Op. cit.*, pp. 61 ff.

²⁸ Cf. e.g. Richter, *Handbook of the Etruscan Collection in the Metropolitan Museum*, p. 27 f.

THE NOMENCLATURE OF ARCHAEOLOGY

It is customary to divide the existence of man into the three Ages of Stone, Bronze, and Iron. This division may have served a useful purpose a hundred years ago, during the infancy of archaeology, but it is now outworn and misleading.

The idea of the three Ages originated in Denmark under the leadership of Christian Thomsen¹ in 1836. In the peat-mosses of Denmark were found accumulations containing the remains of different kinds of trees. The lowest layer contained the Scottish fir, which now no longer grows in Denmark; next came a layer containing oak; and above that lay buried another species of oak, together with alder and birch, over which in turn grew the beech, still the commonest tree in Denmark. In the lowest layer were found stone implements; in the next, more stone implements, together with some made of bronze; and in the uppermost layers were iron implements. Thus "the corner-stone of modern archaeology" was laid.² It has proved a convenience to the antiquary and a useful guide in the study of human life; but it has served its purpose, and may now be set aside as a faulty generalization.

With the further study of the stone artifacts surviving from the early stages of human culture there came the subdivision of the Stone Age into the Palaeolithic and Neolithic periods. These terms we owe to that sagacious philosopher Sir John Lubbock, afterward Lord Avebury,³ who proposed them in 1865. The Neolithic technique was supposed to be distinguished by the grinding and polishing of stone, in contrast to the mere chipping and flaking used in the preceding period. This nomenclature likewise is ready for rejection.

Archaeologic ideas at the beginning of modern scientific enquiry, as distinguished from the poetic guesses of Hesiod and Lucretius, for example, were based, naturally and inevitably, upon the evidence obtainable in western Europe, where, in the early Victorian period, the systematic study of the subject had its start. In western Europe, more especially in France and in England, the prehistoric evidence of man's existence took the form of flint artifacts, on the scrutiny of which the now conventional classification of Chellean, Acheulean, Mousterian, Aurignacian, Solutrean, and Magdalenian types was based, these names being taken from the various localities in France where successive methods of flint chipping and flaking were characteristic of prehistoric implements. Since then, we have learned that flint is not to be found everywhere, and where it was lacking the primitive artificer made use of other kinds of stone demanding a different technique. A tough stone, such as diorite or diabase, calls for grinding rather than chipping, and polishing, of course, is the normal sequel to grinding; so that evidence of this method of shaping can not serve as a criterion for chronology in many parts of the world.

From the standpoint of flint technique, the substitution of chipping by flaking, as begun by the Solutreans, is much more critical than any other change of method. It

¹ Christian J. Thomsen, *Ledentraad til Nordinsk Old Kyndighed* (Introduction to Nordic Archaeology), 1836.

² R. A. S. Macalister, *A Text Book of European Archaeology*, 1921, p. 3.

³ Sir John Lubbock, *Pre-historic Times*, 1865, p. 2.

was discovered by primitive men wide apart both in place and time, and was much more significant than the art of grinding, which is supposed to be identified with the Neolithic period. The Indians of southern California, when first seen by Europeans, are described as being in the Neolithic stage of culture because they polished their stone artifacts; yet they were so backward as to be without either agriculture or pottery. This suggests that it is a mistake to regard the polishing of stone as the mark of a definite stage of material culture, when, as a matter of fact, the technique was developed in accord with the kind of stone that was available.

To speak of the stone-working of the South Sea islanders as Neolithic is inexcusable. They had neither flint nor any other stone fit for flaking, so they had to make use of the tough igneous rocks from which to fashion their adze-blades and spear-points. On some of the coralline islands of the Pacific, no stone whatsoever was available for artifacts except such as came there entangled in the roots of tree-stumps brought by the oceanic drift.⁴ In other parts of the world, notably in Mexico, the use of flint was replaced by that of obsidian, a volcanic glass amenable to much the same treatment as flint.

We may assume reasonably that the plentiful supply of good flint in the chalk of western Europe prompted an early development of that phase of stone fabrication known as flint-knapping, but the assumption that everywhere the pecking, grinding, and polishing of stone, associated with the so-called Neolithic period, came long after the chipping and flaking of flint, associated with the so-called Palaeolithic period, is not in accord with the evidence obtained from the study of the stone culture of the most backward of surviving primitive peoples. The Arunta and Warra-munga tribes of northern Australia, for example, have used both methods contemporaneously.⁵ To grind diorite into shape or to chip quartzite into form is determined by the accident of supply. The method chosen will depend upon the kind of stone available. In the middens along the coast of British Columbia it has been noticed that stone points shaped by abrasion are as common as those shaped by chipping, but within the interior of the same Province the prehistoric implements are more commonly shaped by chipping.⁶ Indeed, similar evidence elsewhere warrants the conclusion that the indigenes of the interior of North America were more advanced in their stone technique than those of the coast, east and west, probably because they did not have access to a supply of stones already partly shaped by the action of the surf, and also because the interior happened to give them a supply of flint, quartzite, and other stones that could be chipped and flaked.

Apart from stone culture, the Neolithic as a period of time has shrunk to dimensions that render it of little value to the archaeologist. In Europe, where only it has any real significance, it refers to a period between the late Palaeolithic and the first extraction of metals by smelting—say, from 3000 B.C. to the beginning of the so-called Bronze Age. As the earliest bronze, in the valley of the Danube, is referred to about 2300 B.C., it would appear that only 700 years covers what was originally meant to be a major division of human chronology. Moreover, it has been the habit

⁴ Otto von Kotzebue, *A Voyage of Discovery into the South Sea* ii, 1821, p. 64; translated by H. E. Lloyd.

⁵ Baldwin Spencer and F. J. Gillen, *The Northern Tribes of Central Australia*, 1904, p. 635.

⁶ Harlan I. Smith, *Annual Report of the National Museum of Canada*, 1927, p. 4.

of authoritative archaeologists, such as Sir Arthur Evans, to speak of the ancient finds of copper relics as belonging to an Early Bronze Age;⁷ and since the first smelting of copper goes back to about 4000 B.C., we are warranted in concluding that the Neolithic is excluded as a cultural interval between the flaking of flint and the first reduction of metallic ore.

The Bronze Age is likewise a misnomer. It represents a minor phase in the use of copper, and characterized the metal culture of only a small part of the world. The exaggerated importance of bronze usage arose from the fact that the use of the copper alloy signalized the art of the classic period, of the Greeks and of other peoples in the eastern Mediterranean region, from whom we have derived the system of living we term our civilization. In the larger part of the world, bronze was not employed before iron. Indeed, in some parts, the use of iron preceded that of bronze. The critical factor, in determining priority, was the supply of tin, and this metal we know has always been scarce; it has been small in quantity and available in relatively few localities. Even in our time the world's production of copper, of lead, and of zinc is stated in millions of tons, whereas that of tin is stated in thousands of tons. This persistent scarcity of tin and its restricted distribution would suffice to limit the prevalence of anything like a Bronze Age. Moreover, even in Europe, to which we owe most of our outworn terminology, the beginning of bronze usage is dated, as already mentioned, from 2300 B.C., whereas the beginning of a distinct Iron Age—associated with Hallstatt—is dated from about 1000 B.C. Therefore an interval of only 1300 years separates the beginnings of the two Ages. If we turn to the earliest iron implements found in the eastern Mediterranean we have the tools found at Gerar, dated from about 1350 B.C.⁸ Moreover, there is reason to believe that iron was smelted in the Hittite highlands at least as early as 1400 B.C. Thus the so-called Bronze Age shrinks, at most, to a mere millennium, or not more than, shall we say, the merest fraction of human existence.

Here we may pause for a moment and ask, what is an Age? In our present context it signifies a long period of time marked by the use of artifacts of a distinctive material. The effort to divide human existence in terms of artifacts has introduced the idea of closed compartments of culture, suggesting therefore that no stone was used in the Bronze Age and that bronze was discarded in the Iron Age. This, of course, is erroneous; there were overlaps, large and continuous. So far as the metals are concerned, they were scarce among the common people even when kings, priests, and other potentates had the use of them in quantity sufficient to characterize a given period. Even today artifacts of wood, bone, shell, and stone are used by those we term civilized peoples.

As intimated already, it has been the custom among distinguished archaeologists to refer any copper artifact found in classic remains of remote antiquity to an Early Bronze Age. This is a blunder. Such nomenclature ignores the possibility that the copper was not even smelted, and therefore has no more relation to the Bronze Age than a stone artifact. The use of native copper antedates the smelting of the tin-copper alloy by an interval of time so large as to make such a term as Early Bronze

⁷ *The Palace of Minos* ii, 2, 1928, pp. 624, 627, 629.

⁸ Sir Flinders Petrie, *Nature*, July 9, 1927, also Petrie, *Gerar*, 1928, p. 14.

Age entirely misleading. We know that all over the continent of North America the indigenes made use of native copper by hammering it into ornaments and implements long before the European arrived,⁹ and we are justified in the inference that in Europe likewise during the dawn of human industry a similar use of native copper is likely to have prevailed. The traces of it were largely obliterated when the art of smelting was discovered, because then the battered implements made of the native metal were cast into new shape by melting, so that little evidence of the earlier chalcolithic art has survived amid the relics of the prehistoric period. This use of native copper goes back to the early use of stone, of which it forms a part.

Before copper was smelted, the use of metal had been known to man for thousands of years. Almost as soon as he began to gather stones for shaping into ornaments and implements, he picked up the lumps of native metal that he found on the edges of the streams along which he wandered. Gold, silver, copper, and meteoric iron were obtained in this way. To primordial man these lumps of native metal were soft stones. He treated them as stone by hammering them into rings, knives, and spear-points. Unlike other stones, they could be shaped without loss of substance; the metals had the quality we term malleability. Thus a chalcolithic art originated. The use of stone, however, continued long after man had begun to use metals, simply because metals were scarce in some places and lacking in others; moreover, stone served the purpose as well as, if not better than, the native metal before the annealing of copper was discovered, and stone might well have been preferred to the inferior metal resulting from the first rudimentary smelting operations.

The chalcolithic art can not be placed definitely in time, because it prevailed contemporaneously with the use of other substances; even a twilight zone cannot be defined. Until the art of smelting was discovered, and man was able to extract metal out of stone, he regarded the lumps of native metal as kinds of stone differing from other stones by being soft, and yet both tough and tenacious.

In 1910 Stefansson, when exploring the Canadian Arctic region, encountered a group of Eskimos that had never seen a white man and were so primitive that he called them a people of the Stone Age. He gave them the name of the Copper Eskimos, "because so many of their implements were made of copper."¹⁰ Their knives, arrowheads, and fish-hooks are made of native copper, found on the surface of Victoria Island. They make use of bone and soft drift-wood, and out of soapstone (steatite) they shape their oil-lamps and other containers. In short, they prefer substances that are relatively soft. They have pieces of black slate, to which they give an edge by grinding them on granular rock. It appears that formerly they knew how to chip harder stone, such as quartzite, but now, finding the copper more amenable, they have rejected the use of stone.¹¹

A similar change of practice is noted among the Eskimos in the Coppermine River district on the mainland, not far south of Victoria Island. When Samuel Hearne visited them in 1771, they were using some stone. "Their arrows were either shod with a triangular piece of black stone, like slate, or a piece of copper; but most

⁹ T. A. Rickard, *Journal of the Anthropological Institute* lxiv, 1934, p. 265.

¹⁰ Vilhjalmur Stefansson, *My Life with the Eskimos*, 1929, p. 207.

¹¹ *Anthropological Papers of the American Museum of Natural History* xiv, 1914, pp. 22, 113.

commonly the former." A century later copper had completely replaced the slate, and in 1914 the use of slate had become only traditional.¹²

The name given to the first stage of human existence — the Stone Age — ignores the fact that stone would not be the first material from which man would fabricate his implements. Obviously he might use materials less refractory, such as wood, bone, and shell. He did. For a long time before he used stone, he availed himself of such other materials. In geology — or, rather, palaeontology — the farther back we go, the longer are the successive periods identified with the evolution of living creatures, because progress advances by acceleration and not with uniform speed. Likewise in anthropology, we may infer that the time preceding the use of stone probably was much longer than the Stone Age, because it covered the first efforts of man to adapt himself to his environment by making use of the materials with which he could fashion his rudimentary tools and weapons.

Evidence is plentiful to prove that even some of the surviving backward peoples, as seen by navigators and explorers in different parts of the world during the past four centuries, had not advanced to the use of stone, and others were using it so little and so ineffectively as to suggest that it was a comparatively new departure for them. The Aleuts,¹³ the Andaman islanders,¹⁴ some of the hill tribes of the Malay peninsula,¹⁵ and the denizens of the upper Amazon valley may be cited as examples¹⁶ of a culture so rudimentary as not to include the use of stone. Several Indian tribes on the northwestern coast of North America,¹⁷ the Fuegians,¹⁸ the Bushmen,¹⁹ the Tasmanians,²⁰ and the Eskimos,²¹ when first seen, exhibited the merest beginnings of stone usage.

The belief in the priority of stone usage has arisen largely from the fact that stone, especially flint, is imperishable, and therefore the stone artifacts of primordial man have survived when nearly everything else that belonged to him, including his own skeletal remains, have decayed and disappeared. On the other hand, it is known that there are many regions in which stone is scarce or not suitable for fabrication; and it should be obvious that a creature just emerging from apehood would not begin at once to use flint, chert, or other hard stone, when he had materials much less resistant out of which to shape his crude implements. This idea found expression many years ago, although it failed to effect any change of nomenclature. In 1864, at a meeting of the Ethnological Society, an honored member, John Crawford, remarked: "On man's first appearance, the most obvious materials would consist of

¹² Diamond Jenness, *The Geological Review* xiii, 1923, p. 550.

¹³ William Coxe, *Account of the Russian Discoveries*, 1780, p. 78.

¹⁴ Edward H. Man, *On the Aboriginal Inhabitants of the Andaman Islands*, 1883, p. 161.

¹⁵ Leonard Wray, "The Cave Dwellers of Perak," *Journal of the Anthropological Institute* xxvi, 1887, p. 46.

¹⁶ *Expeditions into the Valley of the Amazon*, translated by Clements R. Markham, Hakluyt Society, 1859, pp. 80-83.

¹⁷ Gilbert M. Sproat, *Transactions of the Ethnological Society* v, 1867, p. 250.

¹⁸ Sir Francis Drake, *The World Encompassed*, 1628, edited by N. M. Prenzer, 1926, p. 29.

¹⁹ Andrew A. Anderson, *Twenty-five Years in a Waggon in South Africa*, 1887, p. 13.

²⁰ *The Three Voyages of Captain James Cook* v, 1821, p. 177.

²¹ Richard Hakluyt, *The Principal Navigations, Voyages, Traffiques, and Discoveries of the English Nation* iii, 1600, pp. 31, 37, 38.

wood and bone. . . . This would constitute the wood and bone age, of which, from the perishable nature of the materials, we can, of course, possess but slender records."²² The pregnant suggestion was ignored, because at that time attention was focussed upon the discoveries and descriptions of Boucher de Perthes, Gabriel de Mortillet, and Edouard Lartet, in France, together with Falconer and Prestwich in England, who had identified flint implements in the various alluvial deposits in France and England as relics of the men of long ago, and thereby gave an impetus to the study of these flint deposits as a clue to the rudimentary culture of primordial man. Flint-hunting became the fashion. Even the finding of bone artifacts in association with the earliest skeletal remains, such as those of the Paviland cave, Kent's cavern, the cairns of Caithness, the grottoes of Aurignac, the sites of *Sinanthropus* and *Heidelbergensis*, have failed to draw attention to the chronological value of this elementary phase of primitive handicraft.

The idea of distinct subdivisions of human culture has influenced archaeological thought, that is to say, the idea that one kind of material was used throughout any one "Age;" as, for example, that neither stone nor iron was used during the Bronze Age.²³ Bronze was always scarce, and was used concurrently with stone. Even after iron was brought by the Russians to the Chukchees in northeastern Siberia, they continued to use bone. Bogoras describes their implements, which show an overlap of bone, stone, and iron usages. "Bone, ivory, and antler," he says, "were used also for all kinds of weapons, such as harpoons and arrows. After the appearance of iron, they held their ground much better than the stone tools. Of the specimens found in old Chukchee and Eskimo houses, only a few bear traces of having been made with stone tools. Most of them were fashioned with iron knives. Even now the bodies of harpoon-points are cut out of bone almost exclusively. The same is true of the butts of harpoons which are used for breaking ice. Bone arrowheads are also common in those parts of the country where the bow is still used."²⁴

Primordial man used such materials as were available, and, probably, he used many kinds, such as wood, bone, and shell, together with pebbles for pounding the nuts and seeds he ate. The use of some of these substances he inherited from his simian ancestors. The gorilla is known to use a tree branch as a staff or club. The orang knows how to build an arboreal platform with branches torn by him from trees. Apes and monkeys use stones. Ray Lancaster says that many of the larger monkeys have great skill in throwing stones, sending them with considerable force and good aim. They select stones of size and weight appropriate to their purpose. The apes are known to make use of stones for cracking nuts or the shells of molluscs, in order to extract the soft and nourishing food they contain.²⁵

In the present state of knowledge it would appear that human existence may be divided into a Primordial Age, characterized by the use of wood, bone, and shell; the Stone Age; and lastly, the Metallurgic Age. It is more correct to say "Metallurgic" than "Metal," because the use of metals, in the native state, goes far back into

²² John Crawford, *Transactions of the Ethnological Society* iv, 1864, p. 1.

²³ Charles J. Combraire, *Les Premiers Âges du Métal*, 1894, p. 75.

²⁴ Waldemar Bogoras, "The Chukchee," *Jessup North Pacific Expedition* vii, 1904, p. 209.

²⁵ Ray Lancaster, *Diversions of a Naturalist*, 1919, p. 242.

the Stone Age. The critical point was the discovery of smelting, whereby the metals were extracted from their ores. Until then the amount of metal available was small, and, I may add, it continued to be small until the art of casting iron was discovered, in China.²⁶ Thereafter, the use of iron for engineering purposes on a large scale marked the beginning of our industrial civilization.

Another term of doubtful authenticity is *Homo sapiens*. The species of the primates to which man belongs has been so designated on account of his intelligence. Unfortunately, the Latin *sapiens* connotes wisdom rather than an emergent intelligence. It may well be doubted whether even today man deserves the epithet *sapiens*, for his obvious stupidities in the governance of the world suggests the antonym *insipiens*. It is not by wisdom, nor even by intelligence, that man is differentiated from his pithecoïd cousins. The one faculty that separates man completely from the beasts of the field is speech. Huxley, in his memorable essay on "Man's Place in Nature," drew attention to this fact. "Man," he said, "is in substance and in structure one with the brutes," it is true, but "he alone possesses the marvellous endowment of intelligible and rational speech."²⁷ This faculty of speech and the art of recording himself in writing enable man to transmit the experience that in other animals is lost with the individual life; they have enabled him to organize his knowledge and to hand it down to his descendants, first by word of mouth and then by written words. Our species, I submit, should be known as *Homo loquens*.

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²⁶ Thomas T. Read, *Harvard Journal of Asiatic Studies* ii, No. 3, 1937.

²⁷ Thomas H. Huxley, *Man's Place in Nature*, 1894, p. 155.

FERIALE DURANUM I, 1, AND MATER CASTRORUM

SOME while ago James H. Oliver published in this JOURNAL a note proposing a new attribution of the entry in col. I, 1, of the Dura *Feriale*, which in the original publication was conjectured to have prescribed the celebration of the New Year, the *Kalendae Ianuariae*.¹ No restoration of the line has been offered previously because no letters remained as a basis for it; and, in fact, the very existence of the line had to be inferred from the spacing of the extant lines on the papyrus and from the popularity of the *Kalendae Ianuariae* as a holiday among the Romans. If, however, a restoration had had to be made, I should have suggested:

[*kal(endis) ianuaris ob diem kalendarum ianuariarum supplicatio*],

without any mention of a sacrifice to a particular deity. This follows the usage of the document in the case of other popular holidays.²

Oliver, however, remarks of this entry, that the editors "have not discerned to whom that festival was dedicated. I should like to point out that the lost recipient of the sacrifice was the Mater Castrorum, the patron deity of the Roman Army." This does not make clear whether Oliver thinks of the occasion as a celebration of the *Kalendae Ianuariae* during which a sacrifice was offered in the army to *Mater Castrorum*, or whether he regards January 1 as a festival of *Mater Castrorum* in the same sense as the Vestalia was a festival of Vesta; but in either case it seems plain from his mention of "the recipient of the sacrifice" that he conceives of *Mater Castrorum* as a deity existing independently in her own person. (What is meant by "patron deity of the Roman Army" may be left out of the question).

For this attribution of the entry in the *Feriale* his evidence is an Athenian inscription honoring Julia Domna³ in which ll. 22-26 read

. τὸν
[δὲ π]ολέμαρχο[ν τῇ μητ]ρί τῶν στρατοπέδων [θύειν]
[τῇ π]ρώτῃ ἡμέ[ραι τοῦ κ]ατὰ Ῥωμαίους ἔτους, κα[τ-]
[ἀρχε]σθ[α]ι δὲ [κ]αὶ [τοῦτῳ]ν τῶν θυσιῶν τὴν ἰέρεια[ν]
[τῆς Ἀ]θηνᾶς [τῆς Πολι]ᾶδος καὶ τὰ γέρα φέρεσθ[αι]

So far as I know, however, no other ancient text exists which might suggest that *mater castrorum* (μήτηρ τῶν στρατοπέδων) could designate an independent deity capable of receiving any form of cult. On the contrary, the frequency with which *mater castrorum* is combined in inscriptions with such titles as *mater Caesaris*, *mater*

¹ James H. Oliver, "Notes on Documents of the Roman East," *AJA*, xlv, 1941, pp. 540-541. The *Feriale* (hereafter cited as *Feriale Duranum*) was published by A. S. Hoey, W. F. Snyder, and the present writer in *Yale Classical Studies* vii, 1940, pp. 1-222. For the entry under discussion see pp. 40-41 and 50-51; and for the *Kalendae Ianuariae* see also pp. 83, 107, and 109-110. The author wishes to acknowledge here Hoey's very helpful criticisms of the present paper.

² The parallels for this restoration are col. II, 1: (date) *ob diem quinquatriorum supplicatio*; col. II, 8 and 14: (date) *ob rosalias signorum supplicatio*; col. II, 22: (date) *ob diem neptunaliorum supplicatio immolatio*.

³ For the complete text with a full bibliography see James H. Oliver, "Julia Domna as Athena Polias," *Harvard Studies in Classical Philology*, Special Volume (Cambridge, Massachusetts, 1940), pp. 521-530. Earlier versions, now emended, are *JOAI*, xvi, 1913, pp. 249-270; *IG*, ii, 1076; and *Hesperia* iv, 1935, pp. 178-184.

Augusti, *mater senatus*, and *mater patriae* appears sufficient to demonstrate that *mater castrorum* is also no more than a title.⁴

There is no need, however, to appeal to a cult of *Mater Castrorum* to explain the existence of an entry for January 1 in the *Feriale Duranum*. The *Kalendae Ianuariae* was an important festival in the official civil calendar;⁵ and the New Year was a very popular holiday in private life, just as it continued to be in the Middle Ages and is at the present day. But a popular holiday was likely, as Hoey has shown,⁶ to find a place in the military calendar. That the *Kalendae Ianuariae* actually was observed even in the army of the Roman Republic is apparent from the testimony of Appian;⁷ and there is sufficient evidence to show that this military observance of the day continued throughout the period of the Empire.⁸ Furthermore, there is evidence from as early as the time of Augustus that the *Kalendae Ianuariae* had a special significance for the imperial family;⁹ and this too, in view of the large proportion of entries in the *Feriale* which concern the imperial cult, must have had an influence in the inclusion of the *Kalendae Ianuariae* among the festivals listed for celebration.

If, then, the entry in the *Feriale Duranum* is to be explained as referring only to the *Kalendae Ianuariae*, without mention of a *mater castrorum*, how is the wording of the Athenian inscription to be understood? The answer, it seems to me, is to be found on the one hand in the nature of the *Kalendae Ianuariae*, which has just been discussed, and on the other hand in the purpose of the decree to honor Julia Domna. A direct link with the imperial cult is indicated by the final provision that the stele on which the decree was engraved was to be set up "beside the altar of the Augusti on the Acropolis."¹⁰ In addition, one might expect January 1 to be included in this series of observances,¹¹ not only because of the connections of the *Kalendae Ianuariae*

⁴ A. Alföldi, for example, treats *mater castrorum* as a title and nothing more in his "Ausgestaltung d. monarchischen Zeremoniells am röm. Kaiserhofe," *RM*, xlix, 1934, p. 69. Examples of the combinations of titles noted above are to be found *passim* in both the Latin and the Greek inscriptions of all the Julias of the Severan dynasty. The *reductio ad absurdum* is an inscription of Julia Mamaea, niece of Julia Domna and mother of Severus Alexander (Dessau, *Inscr. Lat. Sel.* 485 = *CIL* ii, 3413): *mater domini n(ostri) sanctissimi imp(eratoris) Severi Alexandri Pii Felicis et castrorum et senatus et patriae et universi generis humani*.

⁵ See especially A. S. Hoey, *Feriale Duranum*, pp. 107 and 109–110.

⁶ *Feriale Duranum*, pp. 165–173.

⁷ Appian, *Bell. Civ.* v, 34 (siege of Perugia): νομηνίας δὲ ἔτους ἐς τὴν ἐπιοῦσαν ἡμέραν οὔσης, φύλαξας ὁ Λεύκιος (Antonius) τὴν ἑορτὴν ὡς ἀμελείας τοῖς πολεμίοις αἰτίαν, ἐξέορθε νυκτὸς ἐπὶ τὰς πύλας αὐτῶν ὡς διεκπαίσεων αὐτοῦς, κτλ.

⁸ E.g. Herodian ii, 2, 9 (on the night of December 31/January 1, when Commodus was murdered): οἱ στρατιῶται . . . ἦσαν πανταχόθεν ὑπὸ τοῦ δήμου περιειλημμένοι, ὀλίγοι τε καὶ ἀνευ τῶν ὀπλων ὡς ἐν ἱερομηνίᾳ, κτλ.; Cassiodorus, *Historia Tripartita* vi, 30 (Migne lxix, p. 1050 D, l. 69): *tempus quo imperialia milites solent dona accipere (hoc enim agitur plerumque die calendarum Ianuariarum et natali principum et urbium regiarum)*. For other evidence see the references in *Feriale Duranum*, note 114.

⁹ E.g. *CIL* vi, 456: *Laribus publicis sacrum Imp. Caesar Augustus . . . ex stipe quam populus ei contulit K(alendis) Ianuar(iis)*; and *CIL* vi, 457 and 30974. See also the references in *Feriale Duranum*, note 113, for this and later reigns.

¹⁰ *LI*. 36–39: [ἀνα]γράφαι δὲ καὶ τὴν [τούτων εἰ]σήγησιν ἐν στ[ήλῃ] καὶ ἀναθε[ί]ναι πα[ρὰ] τὸν ἐν Ἀκροπόλει βωμῶν [τῶν] Σεβαστῶν.

¹¹ What provisions were contained in the original decree, to which the present inscription is a rider, and whether that decree honored Julia Domna or Septimius Severus or both, can only be conjectured; but it should be borne in mind that the present text consists of provisions which were in some way merely supplementary.

with the imperial cult in general, but also specifically because of the military connotations of the holiday; for with Julia Domna began an extraordinary period, which continued throughout the Severan dynasty, of emphasis on the interest of the empresses in military affairs, even to the point of their active participation.¹²

The *Kalendae Ianuariae*, however, posed a problem to the Athenians in framing the decree. Most of the occasions mentioned honored Domna through her identification with Athena Polias; and her birthday (if ἐγ[εννήθη] is the correct restoration in l. 13) was hers in her own right; but January 1 was a date without significance in the cult of Athena; and since the Athenian calendar differed from the Roman, the day had no meaning for the Athenians as the beginning of a new year. Even for Domna it was significant only by virtue of her position as empress; but it was included in order to do her honor. L. 23 might accordingly have ordered a sacrifice directly to Ἰούλια Σεβαστή; but this might have led to misunderstanding because Julia Augusta was now also Athena Polias. Hence ἡ μήτηρ τῶν στρατοπέδων was used instead of her name, not as the name of a goddess but as a title of Julia Domna's which would express the military aspects of the date and would at the same time distinguish between Domna as Athena and this other phase of Domna's personality which was appropriate to a festival with which Athena had nothing to do. It seems possible, too, that the choice of the polemarch to perform this sacrifice is significant. I have not been able to find in the books to which I have access an authoritative statement of the position and functions of the polemarch at Athens in the second and third centuries of our era; but since Athens was still technically an independent city which was only allied to Rome and still had the same magistrates as in the pre-Roman period, it is not unreasonable to suppose that these magistrates continued to exercise much the same functions as formerly.¹³ Those of the polemarch included many which clearly reflect the originally military nature of the office, such as conducting the annual sacrifices to Enyalios and celebration of the ἐπιτάφια in honor of those who had fallen in battle and supervision of the education of their children. The conjecture that the polemarch was delegated to offer the sacrifice on the *Kalendae Ianuariae* because of the military connotations of the occasion appears accordingly to be justified. In order, however, to give the observance a connection with the other honors decreed in this inscription, and to lend a specifically Athenian color to a festival which was in fact being celebrated throughout the Empire, the priestess of Athena was directed to participate in this ceremony also—κα[τάρχε]σθ[α] δὲ [κ]αὶ [τοῦτω]ν τῶν θυσιαῶν.

The Athenian inscription ought not, therefore, to be viewed as evidence for the existence of any cult of *Mater Castrorum* as an independent deity, but should instead be looked upon as a telling corroboration of other indications of the great influence exercised by the women of the Severan dynasty in military affairs and of the importance of the *Kalendae Ianuariae* in both the imperial cult and military religion.

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¹² A. S. Hoey, *Feriale Duranum*, pp. 187-190.

¹³ Cf. most recently James A. Notopoulos, "Ferguson's Law in Athens under the Empire," *AJP.* lxiv, 1943, pp. 44-55, demonstrating that the machinery of the tribal cycles continued to function at least until A.D. 209/10.

LE RAMEAU MYSTIQUE

LE MUSÉE de Cleveland possède un beau miroir grec (fig. 1), que l'amabilité de son conservateur, M. Milliken, nous permet de reproduire ici. Cet objet, publié en 1930 par M. Rossiter Howard,¹ vient d'être repris par Mlle. Margarete Bieber dans son étude des antiquités grecques de Cleveland.² Si nous nous permettons d'appeler sur lui, une fois de plus, l'attention des archéologues, c'est qu'il pose un petit problème d'iconographie dont la solution mérite d'être tentée.

Le miroir remonte à l'époque hellénistique moyenne, sans doute à la seconde moitié du 3^{ème} siècle avant J.-C.³ Son couvercle est orné d'une applique en relief. D'un côté, sur une éminence rocheuse, une femme se tient debout, les jambes croisées, la main gauche appuyée sur une colonnette. Sur sa longue tunique plissée, elle porte un manteau, qui ne couvre guère par devant que ses jambes, et qui s'enroule sur son avant-bras gauche; de sa main droite, elle tire un pan de ce manteau par dessus son épaule. L'autre personnage, placé plus bas que le premier, est un jeune homme, assis à demi sur un rocher, les jambes croisées. Sauf un manteau flottant, agrafé par une fibule ronde, son corps est nu. Dans une attitude familière aux montagnards de la Grèce, aux voyageurs, aux bergers, il s'arcboute sur un bâton nouveau dont le sommet, qu'il tient dans sa main, est engagé sous son aisselle. De l'autre main, tendue vers sa compagne, il lève à la hauteur de son visage un petit bouquet de feuilles, un rameau. Entre les deux personnages se dresse le tronc d'un arbre. Celui-ci est brisé au sommet, et une large trace blanchâtre semble montrer qu'une masse de feuillage devait terminer l'applique vers le haut, et a disparu par l'injure des temps.

* * *

Avant de tenter une identification de ces deux personnages, il ne sera pas inutile de considérer quelques détails, qui, pour n'être pas décisifs en eux-mêmes, ne laissent pas néanmoins de fortifier l'hypothèse que nous présenterons ensuite.

La scène représente un paysage de rochers. Cette circonstance s'expliquera au mieux si nous pouvons la rapporter à un mythe qui a la montagne pour décor.

Il est bon de remarquer aussi que le personnage féminin est figuré dans une pose très noble, très hiératique, et que la colonnette sur laquelle il s'appuie fait penser davantage encore à quelque statue. A quoi s'ajoute le fait qu'il est placé à un niveau sensiblement supérieur à celui de son partenaire, par où le sentiment de la hiérarchie

¹ R. H., *The Art News* xxviii, 1930, Jan. 11, pp. 3 et 5; Id., *Cleveland Museum Bulletin* xvii, 1930, pp. 1 ss.

² Marg. Bieber, *Art in America* xxxi, 1943, pp. 125 s.

³ Mlle. Bieber en abaisse la date jusqu'au 2^e siècle. J'avoue que cette date me semble basse. La chronologie des miroirs n'est pas encore établie sur une base ferme. Cf. Schefold, *Die Antike* xvi, 1940, pp. 34 s.; G. M. A. Richter, *B.M.A.* xxxvi, 1941, pp. 168 s. — Mlle. Richter a bien voulu m'indiquer un miroir assez analogue au nôtre par le style et la technique. Le pourtour est orné d'une torsade presque identique. La scène, qui représente Dionysos et Ariane, est d'une composition différente, mais d'un modelé qui rappelle celui de nos personnages. Zahn (*Die Galerie Bachstitz* ii, p. 41, no. 97, pl. xxxv) attribue cet objet à la première moitié du 3^{ème} siècle; M. van Gulik (*Catal. of Bronzes in the Allard Pierson Museum*, p. 93) le fait remonter à la fin du 4^{ème} siècle.



FIG. 1. — COUVERCLE DE MIROIR EN BRONZE AU MUSÉE DE CLEVELAND
(Courtesy of the Cleveland Museum of Art)

des deux personnages est encore accentué. En fait, on peut à peine douter d'assister à l'entretien d'une déesse avec un mortel, tout au plus avec quelque demi-dieu.

Si maintenant on cherche à se faire une première idée de ce qu'est cette déesse, l'absence d'attributs paraîtra certainement fâcheuse, mais quelques associations d'idées viendront pourtant à l'esprit. Le geste que la déesse fait de la main droite est très particulier, et bien que l'on puisse le rencontrer quelquefois chez d'autres personnages, l'immense majorité des images qui le représentent est constituée par les statues d'Aphrodite.⁴ Très probablement, cette élégante façon d'écarter un peu ses voiles est un geste galant, fort indiqué chez la déesse de l'amour, mais qui eût paru très déplacé chez les déesses plus graves comme Héra, ou Artémis, ou Athéna, ou Déméter, chez lesquelles en effet on ne le rencontre jamais. Il y a donc, à priori, beaucoup de chances pour que notre déesse ne soit autre qu'Aphrodite elle-même. Et l'on avouera que cette identification conviendrait particulièrement bien pour le sujet d'un miroir, puisque les fabricants de ces objets, destinés à la parure féminine, ont marqué une prédilection spéciale pour le mythe de la belle déesse.⁵

Enfin je ne puis me décider à passer sous silence, malgré sa subjectivité, l'impression générale qui se dégage du petit relief de Cleveland. Bien que le mérite artistique de la scène ne soit pas du tout-premier ordre, il s'en dégage incontestablement un grand charme — ce charme que l'artisan grec mettait si naturellement dans l'ouvrage de ses mains. Mais quelle est la nuance particulière de ce charme? Ce n'est pas seulement la douce sérénité d'une conversation champêtre, ni la sentimentalité d'une scène amoureuse banale. Ne songe-t-on pas plutôt à la grâce pensive des stèles funéraires d'Athènes, où les défunts et ceux qui leur survivent ne sont liés que par un long regard? Cette impression de mélancolie, pour fuyante qu'elle soit, revient avec insistance à chaque nouvel examen de l'objet, et je ne serais pas enclin à lui refuser sa part dans l'essai d'interprétation auquel nous allons maintenant procéder.

* * *

Le premier éditeur du miroir avait pensé reconnaître dans ces deux personnages Apollon et la nymphe Dryopé, mais Mlle. Bieber a fait remarquer à bon droit qu'Apollon serait nécessairement caractérisé par un de ses attributs familiers. De même écarte-t-elle avec raison, pour ce seul motif également, l'hypothèse d'Héraclès et d'Augé.⁶ Mais alors, de qui s'agit-il?

⁴ Il ne faut pas confondre avec ce geste celui des personnages qui cherchent à retenir leur manteau soulevé par le vent: ainsi les danseuses qui tournoient (par exemple Reinach, *Répertoire de la statuaire* i, p. 317, 8), ou la Néréide de Xanthos (A. H. Smith, *Catal. of Sculpture in the British Museum* ii, No. 910), ou Europe naviguant sur son taureau (Babelon et Blanchet, *Bronzes de la Bibliothèque Nationale*, p. 15, No. 32). Bien que je n'aie pas fait une recherche exhaustive, un des plus anciens exemples de ce geste semble être donné par la statue dite de Stéropé, dans le fronton de la course, à Olympie (Treu, *Bildwerke von Olympia*, p. 51, fig. 69). A l'époque classique, c'est avant tout le geste de la célèbre statue dite de Vénus Genetrix, et, à partir de là, on le trouve dans une multitude d'images d'Aphrodite. De même dans plusieurs statues de Léda, où son sens est clair. (Sal. Reinach, *op. cit.* ii, p. 416, 1-3).

⁵ G. M. A. Richter, *Greek, Etruscan and Roman Bronzes in the Metropolitan Museum*, p. 258.

⁶ Héraclès et Augé sont représentés dans la frise de Pergame (*Altortuemer von Pergamon* iii, 2, pp. 159 s., pl. xxxi.4), mais, autant que je puisse conclure de la publication, Héraclès ne tient pas de branche: il est debout sous un chêne, dont il saisit une branche. Ce détail est apparemment inexplicable.

En réalité, la scène comprend un seul attribut capable de guider notre choix. Le centre de toute la composition, c'est le rameau que tient la main du jeune homme, le rameau sur lequel se dirige, non seulement son regard à lui, mais encore celui de sa compagne. Le sujet du tableau, on ne peut en douter, c'est la présentation, et même, si j'ose dire, l'ostension du rameau.

Dans la religion et dans le folklore de la Grèce — pour nous borner à ceux-là — le rameau est souvent un emblème d'immortalité, qui tire sa signification des couches les plus profondes de l'animisme et de la magie. En des temps reculés, lorsque l'homme commença de réfléchir sur l'alternance de la vie et de la mort dans le rythme des saisons, il observa que certaines espèces végétales ne suivaient pas le reste de la nature dans la ruine de l'hiver, mais qu'elles continuaient de verdoyer comme si toute la sève, toute la vie, eussent pris refuge en elles. Plusieurs plantes durent à ce privilège une place à part dans les opinions religieuses des anciens, et les fidèles tentaient de s'appropriier par divers rites leur vertu d'immortalité. Ayant traité jadis de cette symbolique avec quelque détail,⁷ je n'accablerai pas à nouveau de mes références le lecteur, et me borne à rappeler quelques monuments caractéristiques, qui suffiront, j'espère, à entraîner la conviction.

Chez les Thraces, le culte mystique de Dionysos paraît s'être développé en grande partie autour de l'immortalité du lierre. Dans l'orgie où ils cherchaient à s'assimiler au dieu renaissant, les bacchants mâchaient le feuillage sacré, s'en couronnaient et en agitaient les rameaux.⁸ Une stèle funéraire de Thasos représente la défunte, trônant comme une déesse, avec un grand rameau de lierre à la main: c'est le talisman grâce auquel elle participe à la vie éternelle.⁹

Dans le culte d'Attis, l'esprit de la végétation était figuré par le pin, autre arbre vert, autour duquel on célébrait les rites de la dendrophorie. Nous reproduisons ici une lampe du musée des Thermes, encore inédite (fig. 2),¹⁰ où l'on voit Cybèle sur un trône, et devant elle le berger Attis, coiffé du bonnet phrygien; d'une main,



FIG. 2. — ATTIS ET CYBÈLE. LAMPE AU MUSÉE DES THERMES (ANC. AU MUSÉE KIRCHER)

⁷ BCH. li, 1927, pp. 202-207.

⁸ Plutarch, *Quaest. roman.*, 112; Eurip., *Bacch.*, 306 ss.; Perdrizet, *Cultes et mythes du Pangée*, pp. 63.

⁹ BCH. li, 1927, pp. 202 s., pl. x. Au musée de Thasos. 2e ou 3e siècle après J.-C.

¹⁰ Citée par Graillot, *Le Culte de Cybèle*, p. 207, note 5. Je dois la photographie que je publie ici à l'amabilité des conservateurs du musée des Thermes, où cette lampe est venue du musée Kircher. Époque romaine.

il tient son bâton pastoral, de l'autre un objet où je crois reconnaître le couteau de silex avec lequel il va se mutiler.¹¹ La déesse lui présente dans ce moment fatal un rameau (un rameau de pin, semble-t-il, avec un cône), qui sera le gage de sa résurrection. Et le rameau de pin paraît aussi avoir joué un rôle dans les mystères phrygiens de Sabazios.¹²

Tout le monde connaît les pages immortelles où Virgile a décrit la descente d'Enée aux enfers. Sur le conseil de la sibylle de Cumès, le Troyen cueille un rameau d'or, grâce auquel il pénétrera dans le royaume des ombres sans y laisser la vie. Parvenu au terme de sa course, il dédie le talisman à la déesse des morts en le fixant, comme un vétéran le fait de ses armes, à la porte de son palais.¹³ Servius, dans son commentaire de l'Enéide, a bien compris le sens de cette cueillette: ¹⁴ "Des auteurs que l'on cite comme ayant écrit sur les mystères de Proserpine, nous dit-il d'une manière trop vague, ont exposé sur ce rameau une doctrine secrète; . . . et nul ne pouvait avoir accès aux mystères de Proserpine sans avoir cueilli un rameau; or célébrer les mystères de Proserpine, c'est descendre aux enfers."

A Eeuis également, les mystes portaient à la main un rameau,¹⁵ et le célèbre ex-voto de Ninnion¹⁶ montre la jeune initiée courant au devant de Perséphone, puis de Déméter, en tenant un rameau, probablement un rameau de myrte, autre plante verte.

Ces rites — très répandus, comme on voit — n'ont pas manqué d'exercer leur influence sur la représentation de certains mythes. Carl Robert en a rassemblé jadis quelques exemples. Dans une fresque d'Antium, Alceste remonte des enfers avec un rameau à la main, car elle a vaincu la mort.¹⁷ Un sarcophage du Latran montre Adonis prenant un rameau sur les genoux d'Aphrodite au moment de la quitter: c'est le gage de son immortalité.¹⁸ Sur un sarcophage de Vienne, Athéna porte à Perséphone, au moment du rapt, le rameau qui lui permettra de revoir le jour.¹⁹ Sur un vase de Naples, Perséphone semble offrir le rameau destiné à conserver la vie d'Adonis.²⁰ Enfin Six a proposé d'interpréter de même les rameaux de saule qu'Orphée, d'après Pausanias, touchait de la main dans une scène de la Nekyia de Polygnote.²¹

¹¹ C'est ainsi que le représente une très intéressante statuette de terre-cuite: Picard, *Les apprêts de l'ordination d'un galle* (Rev. de l'hist. des relig. cii, 1930, pp. 5-12).

¹² BCH. li, 1927, p. 206. Les monuments dans Blinkenberg, *Archaeol. Studien*, pp. 82 s.; 106. Époque romaine.

¹³ Vergil., *Aen.* vi, 136-636. Le sens du rite final a été discuté (par ex. Maass, *Orpheus*, p. 207, note 1). En réalité, c'est l'usage du vétéran qui consacre ses armes en quittant le métier: par exemple le gladiateur Vejanus à la porte du temple d'Hercule: Horat., *Ep.* i, 1, 4s.; cf. Orelli *ad loc.*; même idée dans l'épigramme de l'*Anthologie Palatine* (vi, 24), où un pêcheur consacre un filet usé dans le vestibule du temple d'Atargatis.

¹⁴ Serv. *ad Aen.* vi, 136; cf. Norden, *ad loc.*

¹⁵ Schol. Aristoph., *Equit.*, 408 (scolie du *Venetos*, qui remonte probablement au début de l'époque alexandrine). Cf. BCH. li, 1927, p. 204, note 2.

¹⁶ Svoronos, *Journ. internat. d'archéol.* iv, 1901, pl. 10; Harrison, *Proleg. to the Study of Greek Religion*, p. 558. Début du 4^e siècle avant J.-C.

¹⁷ C. Robert, *Sitzungsber. d. preuss. Akad.* 1915, pp. 709 s.

¹⁸ C. Robert, *Antike Sarkophagrel.* iii, 1, p. 23, pl. 5, No. 21.

¹⁹ Id., *Sitzungsberichte*, p. 710.

²⁰ S. Reinach, *Répertoire des vases* i, p. 499.

²¹ Six, *AM.* xix, 1894, pp. 338 s. (Pausan. x, 30, 6).

Ces exemples, dont la liste pourrait être allongée,²² nous mettent en meilleure posture pour expliquer la scène du miroir de Cleveland. L'éphèbe qui tient le rameau est destiné à la mort et à la résurrection. Cette particularité limite beaucoup le champ de nos conjectures, et plus d'un lecteur aura déjà prononcé le nom qui s'impose: Adonis.

* * *

La scène est sur les monts du Liban, d'où, sur notre miroir, les rochers. Aphrodite est représentée comme il sied à une déesse, à un niveau plus élevé que son amant mortel. Sa pose également garde quelque chose de la majesté de l'Olympe, très compatible avec le geste amoureux que les sculpteurs anciens semblent lui avoir réservé presque exclusivement. Adonis n'a pas d'attributs personnels: il n'en a jamais. On l'a représenté comme un berger, vêtu d'un simple manteau, avec le bâton de son état: *ὠραίος χῶδωνις ἔπει καὶ μῆλα νομεύει*. Avant de partir pour la chasse qui lui sera fatale, il montre ostensiblement le rameau de vie. Aucune tradition littéraire ne nous dit plus si la déesse vient de le lui donner, ou s'il l'a cueilli lui-même à l'arbre sous lequel il est assis. Mais le sens de son geste est clair: en exaltant ainsi le talisman qui lui permettra de quitter périodiquement les enfers pour rejoindre son amante, il atténue l'angoisse de la séparation. Et nous revenons ainsi à cette mélancolie douce et sereine qui anime également — nous l'avons dit au début — le joli miroir de Cleveland et les stèles funéraires de la Grèce.

HENRI SEYRIG

NEW YORK CITY

²² Je me suis borné à citer les principaux monuments déjà énumérés dans mon mémoire sur le relief de Thasos. Depuis cette publication, j'en ai noté plusieurs autres. Mais les circonstances de la guerre, en me privant de mes papiers, m'empêchent de les citer en ce moment.

A GREEK FOOTBATH IN THE METROPOLITAN MUSEUM OF ART¹

PLATES I-II

THE bronze bowl with low tripod base shown in figs. 1-3 was acquired by the Metropolitan Museum in 1938.² Except for a few insignificant breaks in the beading of the rim, it is excellently preserved, probably because, instead of being hammered out of a sheet of bronze like most extant bowls of its type, it was cast.³ The golden color of the bronze remains in several large areas on the inside of the bowl, but is elsewhere replaced by a crusty green patina. The base is at present not attached to the bowl but has left a circular mark with the remains of what looks like solder, and traces of the same substance are found on the top of the base—an indication that the two pieces were originally one. The handles are soldered on and the feet are soldered to the ring of the base.⁴ Small differences in size and detail between one handle and the other and one foot and another show that each handle and foot was made in a different mould.⁵

Not many such shallow wide bowls on low lion-footed bases have survived from antiquity, but they appear fairly often in vase paintings, particularly in representations of Theseus' adventure with Skiron. The latter fact identifies the shape with the footbath.⁶ Further evidence for the identification is given by the skyphos from Chiusi by the Penelope Painter,⁷ on which such a bowl is used for washing Odysseus' feet, and by a fragment from Aischylos, *Sisyphos*:⁸

Καὶ νίπτρα δὴ χρῆ θεοφόρων ποδῶν φέρειν.
λεοντοβάμων ποῦ σκάφη χαλκήλατος;

¹ This article has been subsidized by the Metropolitan Museum of Art.

² Acc. no. 38.11.5a-b. *B.M.A.* xxxiv, 1939, pp. 23 ff. Diam. of bowl with handles 23½ in. (59.7 cm.); without handles 19¾ in. (50.2 cm.); height of bowl with handles 5 in. (12.8 cm.); without handles 3 15/16 in. (10 cm.); height of stand 3 9/16 in. (9.1 cm.).

³ Mr. L. Heinrich, the armorer in the Metropolitan Museum, who very kindly examined the bowl for me, mentioned the following details as evidence of casting: (1) the unequal thickness of the metal—the presence of lumps which would result from casting but not from hammering; (2) the fact that the inside of the rim does not follow the outline of the outside, as it would have had to do if it had been hammered; (3) the fact that the ornamented rim is in one piece with the bowl, for the high beading of the rim could have been produced only by casting. He added that to cast so large a bowl was a difficult feat and that it is a very fine example of the art. We may note that the Argive prize hydria in the Metropolitan Museum is also cast (Richter, in *Antike Plastik*, p. 184). The only tooling found by Mr. Heinrich on the bowl was the radiating grooves separating the petals of the flower finials.

⁴ One very small rivet has been driven through one of the handle attachments to supplement the soldering. On the base, one of the three feet apparently came loose and was reattached in antiquity by soft solder (instead of the hard silver solder which seems to have been used elsewhere on bowl and base). I owe these observations also to Mr. Heinrich.

⁵ Cf. G. M. A. Richter, *AJA.* xliii, 1939, p. 192, note 1 and Pernice, *JOAI.* vii, 1904, pp. 154 ff.

⁶ The most detailed study of the Greek footbath so far made is that by Sudhoff in *Aus dem antiken Badewesen*, pp. 1 ff. For briefer treatments see especially Pottier in *DS.* iv, pp. 375 f., s.v. *Pelvis*; Furtwängler, *Olympia* iv, pp. 136 f.; and Buschor in *FR.* iii, pp. 120 f.

⁷ *FR.* iii, pl. 142; Beazley, *ARV.* p. 721, no. 2.

⁸ *Frgt.* 225 in Pollux x, 78.

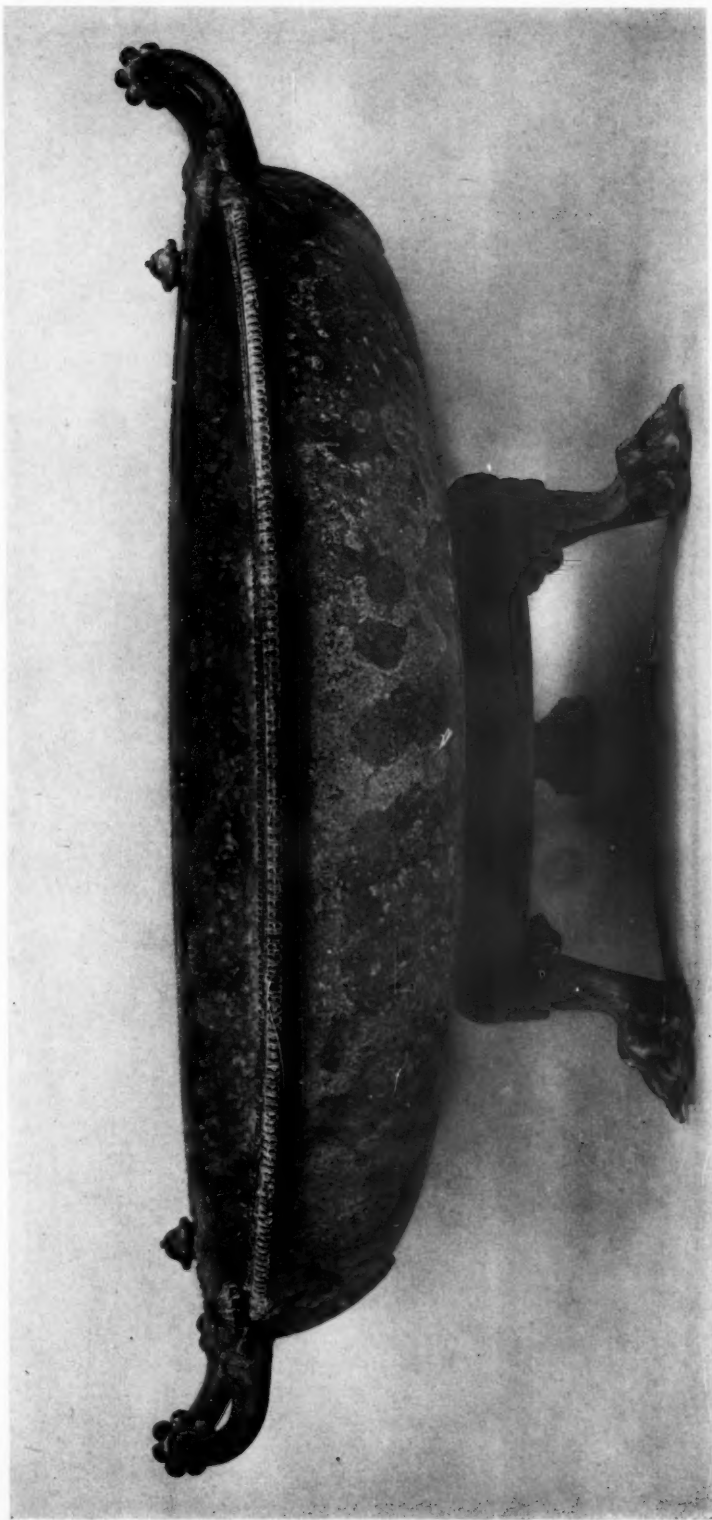


FIG. 1.—BRONZE BOWL ON TRIPOD BASE
(Courtesy of the Metropolitan Museum of Art)

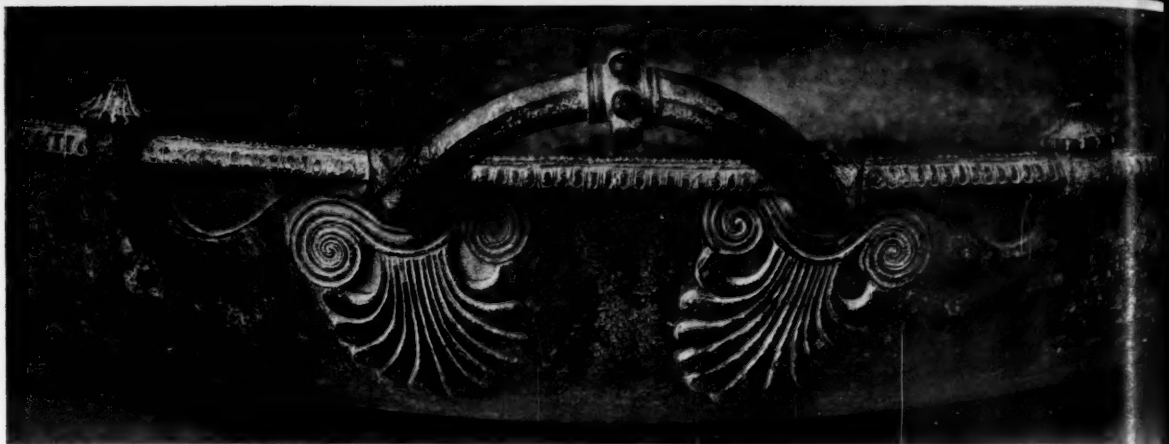


FIG. 2.—DETAIL OF BOWL SHOWN IN FIG. 1
(Courtesy of the Metropolitan Museum of Art)



FIG. 3.—TRIPOD BASE OF BOWL SHOWN IN FIG. 1
(Courtesy of the Metropolitan Museum of Art)



FIG. 4.—BRONZE FOOTBATH FOUND AT TREBENISHTE NEAR LAKE OCHRIDA (FIŁOŃ AND SCHKORPIL,
Die archaische Nekropole von Trebenishte am Ochrida-See, p. 68, fig. 72)

The ordinary Athenian of the fifth century and later would not have used any such high-flown phrase as this, but would simply have called for the ποδανιπτήρ.⁹ The word appears also in a fragment of Stesichoros,¹⁰ in literary Ionic,¹¹ in a Boeotian inscription of the early fourth century B.C.,¹² in an Epidaurian inscription of the second half of the fourth century B.C.,¹³ and in the Hellenistic κοινή¹⁴ and the literary Greek of the Roman age.¹⁵

In the colloquial Greek of the Roman period, however, it was no longer in use, but was replaced by λεκάνη, as we learn from a gloss in Photios' *Lexicon* (s.v. λεκάνη): ἀλλ' οἱ παλαιοὶ ὁ ἡμεῖς λεκάνην ποδανιπτήρα ἐκάλουν, the ultimate source of which must be an Atticist lexicon of the second century A.D.¹⁶ Since λεκάνη is a generic term for a bowl,¹⁷ it was natural to apply it to the footbath, which in both Greek and Roman times was, as we shall see, usually bowl-shaped. The relationship in meaning between the two words is well brought out by a phrase in a Tean inscription of the middle of the second century B.C.:¹⁸ λεκάνην ἐξ ποτήρια καὶ ἄλλην ποδανιπτήρα. It is inherently probable that λεκάνη was occasionally used instead

⁹ Ameipsias in Athenaios xv, 667 f., see below, note 41; Diokles Com. in Pollux x, 78; in an Eleusinian inventory of 408–407 B.C., *IG*. i², 313, 137; and in fourth century inventories, *IG*. ii–iii², 1424a, 258 (inventory of the Chalkotheke, 369–8 B.C.); 1425, 393 (Chalkotheke, 368–7 B.C.); 1427, 4 (partly restored; similar, but not identical inventory of about the same date); 1541, 18–19, 21 (Eleusinian inventory of 356 B.C.); 1544, 67 (Eleusinian inventory of 332 B.C.); and in Delian inventories of the first Attic period, *BCH*. x, 1886, p. 466, ll. 135–6, 140 (364–3 B.C.), whence it is restored partially in *IG*. ii–iii², 1640, 23, 26 (354–3 B.C.) and entirely or almost entirely in *IG*. ii–iii², 1638, B, 61, 65 and 1639, 3, 7; *IG*. ii–iii², 1649, 4, on which see Homolle, *BCH*. viii, 1884, p. 322, and Coupry, *BCH*. lxii, 1938, p. 249.

A diminutive ποδανιπτηρίδιον appears in an inventory of the Chalkotheke of 319–318 B.C., *IG*. ii–iii², 1471, 50, whence it is partially restored in 1469, 98–9.

¹⁰ Frgt. 30 in Athenaios x, 451d. The word is here spelt ποδονιπτήρ, and this spelling is found throughout the MS. of Athenaios, except in xv, 667 f. (below, n. 41), and often in MSS. of writers of the Roman age. The spelling with α, on the other hand, is found in MSS. of Herodotos and in inscriptions. It seems likely, therefore, that the spelling with ο, if not merely a MS. error, began in the later Hellenistic or Roman period.

¹¹ Herodotos ii, 172.

¹² Inventory of Thespiai, *BCH*. lxii, 1938, p. 149, l. 11.

¹³ See below, n. 38.

¹⁴ E.g. in the Delian inventories, *IG*. xi, 2, 161 B, 127 (inventory of the Chalkotheke, 279 B.C.), repeated in 199 B, 78 (274 B.C.), restored in 164 B, 15 (276 B.C.) and partially restored in 195, 2 and 219 B, 72–73 (about 260 B.C.). Perhaps to be restored also in 219 B, 92–3 (Chalkotheke) where only — — πτήρα is preserved (see, however, below, n. 25). Also in a Tean inscription *CIG*. 3071, 8 = Lüders, *Die Dionysischen Künstler*, Anhang, p. 164, no. 41 (time of Attalos II, middle of the second century B.C.; on this inscription see also below); in a fragment of Diogenes of Babylonia, quoted by Athenaios iv, 168 f.; and in a gloss quoted from Philetas by Athenaios xi, 467 f. (See below, p. 31.)

¹⁵ Plutarch, *Moralia* 151 E and Athenagoras, *Suppl.* 26 refer to Herodotos ii, 172; the word ποδανιπτήρ is, as it were, in quotation marks. In *Phokion* 20, Plutarch retains the word which he found in his source (cf. Diogenes of Babylonia in the passage cited above, note 14, who tells the same story in a garbled form) perhaps to avoid the possible ambiguity of λεκάνη. Clement of Alexandria (*Paid.* ii, 3) uses it for its neat balance with χερνύβιον. On *Acta S. Apollonii* 17 see below, note 44.

¹⁶ On ἡμεῖς and λέγουσιν as marks of Atticistic glosses in Photios see Wentzel, *Hermes* xxx, 1895, p. 369.

¹⁷ This is shown by the passages cited by A. D. Ure, *MMS*. iv, 1932–3, p. 18. To these add Septuagint, *Judges* 5, 25 and 6, 38, where it (or the Hellenistic form λικάνη) is used to translate the Hebrew *sēphel*, "bowl." I owe the latter information to Professor Lieberman of the Jewish Theological Seminary of America, who adds that *sēphel* itself is used of a washbowl for hands and feet in the Babylonian Talmud, Menahoth 85b (Siphre ii, 355, ed. Finkelstein, p. 421; original source probably first century): "She brought him a golden bowl (*sēphel*) full of olive oil, and he dipped in it his hands and his feet."

¹⁸ See above, note 14.

of ποδανιπτήρ even in the Attic period. Moreover, another Atticist gloss in Photios, ποδανιπτήρα καὶ λεκάνην λέγουσιν, states that it was, and Pollux¹⁹ includes λεκάνη in the literary words for footbath. The absence of examples for this use in our text of Pollux may be due to the epitomist.

For the Roman period we can cite a number of instances of λεκάνη in the specific meaning "footbath." It appears e.g. in the *Homeric Lexicon* of Apollonios Sophistes,²⁰ in a gloss on κελέβη from Sallustius' commentary on the *Hekale* of Kallimachos (a commentary written probably in the later fourth century, but incorporating earlier material), and in Christian literature of a popular nature.²¹

Not only ποδανιπτήρ but also ποδάνιπτρον (used also in the plural), "water for washing the feet," had become obsolete by Roman times. Less careful writers apparently confused these two words, using ποδόνιπτρον (*sic*, see note 10) in the sense, "footbath."²² The substitution was a natural one, since the suffix -τρον was used to form the names of implements;²³ it may have started with the variant ποδόνιπτρον in the proverb, δεξιὸν εἰς ὑπόδημα, ἀριστερὸν εἰς ποδάνιπτρα.²⁴

In the famous scene in which Christ washes the feet of the Disciples (*John* 13, 5), still another word is used for footbath, νιπτήρ. This word is found also in a Delian inventory of 200 B.C.²⁵ and in Athenaios.²⁶ It is fairly common in Byzantine Greek. Theodoretos speaks of νιπτήρες ποδῶν,²⁷ and the word is used without a qualifying genitive for a vessel in which the feet or hands, or both, are washed in the *Historia Lausiaca* of Palladios,²⁸ in the *Apophthegmata Patrum*,²⁹ and in a homily falsely attributed to St. John Chrysostomos.³⁰ It occurs repeatedly in references to the Gospel story in the services of Holy Week, and the ceremony commemorating this story performed in monasteries on Maundy Thursday is also called νιπτήρ. In the pre-Byzantine period, however, it seems to have been less frequently used than λεκάνη.

¹⁹ X, 77-8.

²⁰ S.v. λέβης· ἐπὶ μὲν τοῦ παρ' ἡμῖν λεγομένου χερνίβου "χέρνιβα δ' ἀμφίπολος," ἐπὶ δὲ τῆς λεκάνης "γρηῦς δὲ λέβητ' ἔλε παμφανόωντα" (*Od.* xix, 386, the footwashing scene), ἐπὶ δὲ τοῦ ἡμῖν συνήθους "ὥς δὲ λέβης ἐνδον ζεῖ," ἐπὶ δὲ τῶν ἀναθηματικῶν "αἰθωνας δὲ λέβητας εἰκόσι." In Hesychios' definition of λέβης, however, ποδονιπτήρ is used.

²¹ See below, notes 34 and 44. Cf. also the passages from Athenaios quoted in notes 23 and 41.

²² Josephus, *Ant. Jud.* viii, 48; Philo and Theophilos of Antioch in the passages cited below, note 44.

²³ Chantraine, *La Formation des noms en grec ancien*, pp. 330 ff. χειρόνιπτρον in the sense "wash-hand basin" was, in fact, Attic. It is cited from two plays of Eupolis by Athenaios ix, 408d and Pollux x, 90 (contrast Pollux vi, 92, where Eupolis is said to have used it of pitcher and basin). It occurs also in a fourth-century Attic inventory (*IG.* ii-iii², 1427, 23-4) and is restored with great probability in another inventory, 1469, 91, and with somewhat less probability in 1416, 7 and 1425, 355 (cf. the well-preserved inventory of the preceding year 1424a, where it is not found). The commoner Attic word was χερνιβεῖον, which is frequent in inventories. It would seem possible, then, that ποδάνιπτρον, "footbath," was also Attic. I have, however, found no trace of it in the inventories or the lexicographers, and it was unknown to Athenaios to judge from ix, 409f.: ἐκάλουν δ' ἀπόνιπτρον τὸ ἀπόνιμμα τῶν χειρῶν καὶ τῶν ποδῶν . . . ἴσως δὲ καὶ τὴν λεκάνην οὕτως ἔλεγον, ἐν ᾧ τρώπῳ καὶ χειρόνιπτρον.

²⁴ For the varying forms of this proverb see Nauck, pp. 233 f. of his edition of Iamblichos, *De vit. Pythag.*

²⁵ Durrbach, *Inscriptions de Délos*, no. 372 B, 29 (Chalkotheke); see also above, note 14.

²⁶ V, 219b: Ξανθίππη . . . ἥτις καὶ νιπτήρας αὐτοῦ κατέχει τῆς κεφαλῆς.

²⁷ On *Jeremiah* 52, 18, Field, *Origenis Hexaplorum quae supersunt* ii, p. 738, note 42. I wish to thank Professor Grégoire for many helpful suggestions on works to be consulted for the Byzantine period.

²⁸ Migne, *Patrologia Graeca* xxxiv, p. 1244 a (p. 148 of Butler's edition).

²⁹ *Patrologia Graeca* lxx, p. 301 c.

³⁰ *Ibid.*, lx, p. 710.

It is not found, e.g., in Preisigke, *Wörterbuch der griechischen Papyrusurkunden* or Krauss, *Griechische und lateinische Lehnwörter im Talmud, Midrasch und Targum*.³¹

One or two dialect words remain to be mentioned. *δῖνος*, which means bowl,³² was, according to Philetas,³³ used by the Cyreneans for ποδανιπτήρ. A gloss from Sallustius' commentary on the *Hekale* of Kallimachos interprets κελέβη in a line from that poem as "footbath."³⁴ The word is perhaps Aeolic.³⁵

The "foot-washer" (to return to its classical name) was used for other purposes as well, as we learn from literature and from vase paintings and other figured scenes where it appears. One could take a complete sponge bath with its help³⁶ or wash one's hair.³⁷ It was a convenient surgeon's basin.³⁸ Furthermore, the custom of having one's feet washed before a meal³⁹ made the ποδανιπτήρ a piece of dining room furniture,⁴⁰ and as such it came to be used for purposes for which it was not originally intended, e.g., to play kottabos⁴¹ and in Etruria perhaps as a wine cooler.⁴² As the party progressed, the uses of the ποδανιπτήρ tended to multiply, as we are told in Herodotos' delightful tale of the golden footbath of Amasis:⁴³

³¹ Numerous instances of λεκάνη, on the other hand, are recorded in both these works. Professor Lieberman adds the following interesting information: "The borrowed Greek word *laqnā* (i.e. λεκάνη) is used in Syriac, both in the *Peshitta*, to translate the Hebrew *kīyōr*, λουτήρ (*Exodus* 30, 18), and in the *Codex Sinaiticus*, which renders νιπτήρ in *John* 13, 5 as "*laqnā* of washing." Cf. also Payne Smith, *Thesaurus Syriacus*, Oxford, 1901, p. 1971 and Brockelmann, *Lexicon Syriacum*, Halle, 1928, p. 370. The date of the composition of our *Peshitta* is a vexed problem (most probably the translation of the Bible was made in the second century and that of the Gospels still later)."

³² See Strattis in Athenaios xi, 467 e:

οἶσθ' ὃ προσέεικεν, ὦ Κρέων, τὸ βρέγμα σου;
ἐγὼ δ' αὖ δῖνον περὶ κάτω τετραμμένον.

For the spelling see Richter and Milne, *Shapes and Names*, p. 10, note 6.

³³ In Athenaios xi, 467 f.

³⁴ Suidas s.v. κελέβη: κόγχη ἢ λεκάνη ἢ τοιοῦτον σκεῦος, ἐν ᾧ δυνατόν νίπασθαι πόδας. ἐν δ' ἔχειν κελέβη, μετὰ δ' αὖ κεράς ἡ φύσατ' ἄλλο (= fr. 20, Kapp; ἐν Schneider, ἐκ Codd.). On Sallustius see especially Wilamowitz, *Einleitung in die griechische Tragödie*, pp. 198 ff., and *Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen, phil.-hist. Klasse* 1893, p. 732; Reitzenstein, *Index Lectionum in Academia Rostochiensis*, 189-91, pp. 13 ff., 1891-2, pp. 4 f. κελέβη in Theocritus ii, 2 is glossed by λεκάνη in the Antinoë papyrus, Hunt and Johnson, *Two Theocritus Papyri*, p. 37. Cf. the rôle of the λεκάνη in λεκανομαντεία and the scene in the Villa Igem, NS. 1910, pl. xv.

³⁵ Athenaios xi, 475 d (on κελέβη): Σιληνὸς δὲ καὶ Κλείταρχος τοὺς Αἰολεῖς φασιν οὕτω καλεῖν τὸ ποτήριον. It may, however, be only the sense "cup" which is Aeolic.

³⁶ Sudhoff, *op. cit.*, pp. 23 f.; below, list B, nos. 1, 2, 5, 7, 15, 34, 36, 39, 46, 57, 61, 77.

³⁷ Cf. list B, nos. 56, 60.

³⁸ List B, nos. 13, 28 (?), 66, 69, 81, 82, 89. When used for such a purpose the podanippter retained its name, as we see from one of the accounts of miraculous cures found in the Asklepieion of Epidauros, IG. iv 1³, 122, 32 f.: ἔπειτα τὰς κοιλίας αὐτῶν ἀνσχίσας ἐξαιρεῖ πληθος 3[.] πολὺ, [δύ]ε ποδανιπτήρας. Cf. λεκάνης in line 57 of this inscription.

³⁹ Plato, *Symposium* 175 a, cf. 213 b; Plutarch, *Phokion* xx; below list B, no. 40.

⁴⁰ It appears beside the couch in nos. 3, 41, and 48 of list B below.

⁴¹ Athenaios xv, 667e-f.: ἕτερον δ' ἐστὶν εἶδος παιδιᾶς τῆς ἐν λεκάνῃ. αὕτη δ' ὕδατος πληροῦται, ἐπινεῖ τε ἐπ' αὐτῆς ὀξύβαφα κενά, ἐφ' ἃ βάλλοντες τὰς λάταγας ἐκ καρχησίων ἐπειρῶντο καταδύειν ἀνηρεῖτο δὲ τὰ κοττάβια ὁ πλείω καταδύσας. Ἀμειψίας Ἀποκοτταβίζουσιν

ἢ Μανία, φέρ' ὀξύβαφα καὶ κανθάρους,
καὶ τὸν ποδανιπτήρ' ἐγγέασα θύδατος.

⁴² Below, nos. 22-25 and 84 of list B.

⁴³ II, 172-3.

τὰ μὲν δὴ πρῶτα κατῶνοντο τὸν Ἀμασιν Αἰγύπτιοι καὶ ἐν οὐδεμιᾷ μοίρῃ μεγάλη ἦγον ἅτε δὴ δημότην τὸ πρὶν ἔοντα καὶ οἰκίης οὐκ ἐπιφανέος· μετὰ δὲ σοφίῃ αὐτοῦς ὁ Ἀμασις οὐκ ἀγνωμοσύνην προσηγάγετο. ἦν οἱ ἄλλα τε ἀγαθὰ μυρία, ἐν δὲ καὶ ποδανιπτῆρ χρύσεος, ἐν τῷ αὐτός τε ὁ Ἀμασις καὶ οἱ δαιτυμόνες οἱ πάντες τοὺς πόδας ἐκάστοτε ἐναπενίζοντο· τοῦτον κατ' ὦν κόψας ἀγαλμα δαίμονος ἐξ αὐτοῦ ἐποίησατο, καὶ ἰδρυσεν τῆς πόλιος ὅκου ἦν ἐπιτηδεότατον· οἱ δὲ Αἰγύπτιοι φοιτέοντες πρὸς τῷ ἀγαλμα ἐσέβοντο μεγάλως. μαθὼν δὲ ὁ Ἀμασις τὸ ἐκ τῶν ἀστῶν ποιεῦμενον, συγκαλέσας Αἰγυπτίους ἐξέφηνε φᾶς ἐκ τοῦ ποδανιπτῆρος τῷ ἀγαλμα γεγονέναι, ἐς τὸν πρότερον μὲν τοὺς Ἀιγυπτίους ἐνεμέειν τε καὶ ἐνουρέειν καὶ πόδας ἐναπονίζεσθαι, τότε δὲ μεγάλως σέβεσθαι. ἤδη ὦν ἔφη λέγων ὁμοίως αὐτὸς τῷ ποδανιπτῆρι πεπρηγένοι· εἰ γὰρ πρότερον εἶναι δημότης, ἀλλ' ἐν τῷ παρεόντι εἶναι αὐτῶν βασιλεύς· καὶ τιμᾶν τε καὶ προμηθέεσθαι ἑωυτοῦ ἐκέλευε. τοιοῦτ' ἄν μὲν τρόπῳ προσηγάγετο τοὺς Αἰγυπτίους ὥστε δικαιοῦν δουλεύειν.

"At first, the Egyptians contemned Amasis and held him in no great esteem, as being (they said) a former commoner and of a house that was not illustrious. But afterwards Amasis won them over, by cleverness, not by arrogance. He had countless fine possessions, and in particular he had a golden footbath, in which both Amasis himself and all his banquet guests always had their feet washed. This footbath, then, he broke in pieces and had an image of a god made from it and set it up in the most suitable part of the city. And the Egyptians resorted to the image and revered it greatly. When Amasis learned what was being done by the townsmen, he called the Egyptians together and made his disclosure, saying that it was from the footbath that the image had been made, into which, before that, the Egyptians had been wont to vomit and make water and to have their feet washed, but which now they revered greatly. Now, then, he said, he himself had fared even as the footbath. For if before he was a commoner, now he was their king. And he ordered them to honor and show regard for him. In such a way he won the Egyptians to consent to be his subjects."⁴⁴

Though the actors are Egyptian, the story is Greek⁴⁵ and scenes such as those to which it alludes appear on Greek vases.⁴⁶ Another and more surprising use to which

⁴⁴ This story became a favorite not only with pagan writers, e.g., Aristotle, *Politics* 1259 b, 8, 9, and Plutarch, *Moralia* 151 e, but even more with Philo and the Christian apologists, who drew from it an entirely new moral, using it as a telling argument against image worship. These passages, which were collected by Klette in his note on *Acta S. Apollonii* 17 and by Geffcken, *Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen, phil.-hist. Klasse* 1904, p. 272, note 5, are Philo, *de vit. contemp.* 7 (who uses the word ποδόνιπτρον); Athenagoras, *Suppl.* 26 (ποδονιπτῆρ); Theophilus of Antioch, *Ad Autol.* i. 10 (ποδόνιπτρον); *Acta S. Apollonii* 17 (ὁμοίως λεκάνην Αἰγύπτισι τὴν παρὰ πολλοῖς καλουμένην ποδόνιπταν (sic!) μετὰ ἐτέρων πολλῶν μυσερῶν προσκυνούσι, where we should read [τὸν παρὰ πολλοῖς καλούμενον ποδονιπτῆρα] or [τὸ π. π. καλούμενον ποδόνιπτρον], the bracketed words being a note by a reader familiar with the passages just cited); *Clementine Homilies* x, 8, 1 (λεκάνη); Minucius Felix 22,4 (*immundum vasculum*). Justin Martyr, *Apol.* i, 9, speaks in general terms of ἅτιμα σκευή and Tertullian, *Apol.* 12,2 of *vascula instrumentaque communia*.

⁴⁵ Wiedemann, *Herodotos zweites Buch mit sächlichen Erläuterungen*, pp. 594 f. Dr. Ludlow Bull, Associate Curator of Egyptian Art in the Metropolitan Museum, informs me that the kernel of the story, the use of a lowly object to make a statue and the insistence later on the fact of its lowly origin, could very well be Egyptian. The material, however, would not have been gold, but gilt bronze, and the details of the story are not Egyptian but Greek.

⁴⁶ Below nos. 10 and 11 in list B. See also Sudhoff, *Aus dem antiken Badewesen* p. 24, note 1, and perhaps the hydria in the manner of the Dikaio painter in the Louvre, *CVA. Louvre*, fasc. 6, III Ic, pl. 53, 1 and 4, Beazley, *ARV.* p. 29, no. 2.

we find the ποδανιπτήρ put is found on a stamnos in Munich by the Hektor painter,⁴⁷ where it serves as a watering trough for a bull. That this elegant vase, worthy of forming part of the ransom of Hektor,⁴⁸ was a piece of ordinary barnyard equipment is hardly likely. The bull is a sacrificial one, delicately tended by Nike, who has brought out one of the temple treasures for him to drink from.⁴⁹

A further fact to be gleaned from vase paintings is that bowl and tripod stand were regularly attached to each other. Scenes in which the podanipter is being lifted or carried⁵⁰ show this and so confirm our observation that it was probably the case in our example.

The most important evidence furnished by vase paintings and other figured scenes, however, has to do with the dating of our bowl. For this purpose the extant bronze footbaths and other related bowls are inadequate, not only because there are comparatively few of them, but even more because certain decorative and structural elements of our bowl had a long life in ancient art. I shall speak of these elements first before going on to the evidence from vase paintings, etc. They were discussed in some detail by Pernice in *Die hellenistische Kunst in Pompeji* iv.⁵¹ They are (1) the rim with tongue pattern surmounted by beading, (2) the faceted bow handles with a girdle of knobs in the center, (3) the prolongations of the handles that extend along the side of the bowl and rise to the edge, the purpose of which is to increase the area of attachment and so make the handles more secure, and (4) the conventionalized flower in which these prolongations end. Pernice, who did pioneer work in drawing attention to parallels between South Italian red-figured pottery and a number of bronze vases from Pompeii, showed that the four characteristics I have just mentioned are found in the Hellenistic period. He failed to note, however, as Neugebauer observed,⁵² that they can all be traced back into the archaic period. The tongue pattern, surmounted by beading, ornaments the rims of a number of ripe archaic bronze vases of which the common characteristic is the tongue pattern on their bodies.⁵³ It occurs also e.g. on a bronze hydria from a late archaic grave near Duvanlii,⁵⁴ on a similar hydria with a Boeotian inscription in the Rhode Island School of Design,⁵⁵ and on a number of Etruscan bronze vases of the style of ca. 500 B.C., said to have been found in a tomb at Civit  Castellana and now in the Metropolitan Museum.⁵⁶ The faceted (or sometimes fluted) bow handles with a girdle of knobs in the center occur not only on South Italian red-figured pottery and on Pompeian bronzes⁵⁷ but also on a number of bronze hydriai⁵⁸ belonging to the "ripe archaic tongue-pattern" group already mentioned, including two of a set of hydria handles acquired

⁴⁷ List B, no. 21.

⁴⁸ *Ibid.*, no. 9.

⁴⁹ Cf. the ποδανιπτήρες listed in temple inventories above, notes 9, 12, 14.

⁵⁰ List B, nos. 1, 2, 5, 9, 19. Cf. also no. 18.

⁵¹ Pp. 10-12, 15-17, 36-37.

⁵² *Gnomon* ii, 1926, pp. 470, 474.

⁵³ Nos. 2-3, 11-13, 22-23 of Neugebauer's list in *RM.* xxxviii-xxxix, 1923-1924, pp. 341 ff. Cf. Filow, *Die archaische Nekropole von Trebenische am Ochrida-See*, pp. 59 ff., no. 72, fig. 63, pls. x, xi.

⁵⁴ Filow, *Die Grabh gelnekropole bei Duranli in S dbulgarien*, p. 89, no. 9, fig. 111.

⁵⁵ D. M. Robinson, *AJA.* xlvi, 1942, pp. 180 f., figs. 12, 13.

⁵⁶ G. M. A. Richter, *Greek, Etruscan and Roman Bronzes*, pp. 179-180, 186 ff., no. 488, pp. 206 ff., nos. 570, 572, 573 (and the similar jar no. 574), 578; *Handbook of the Etruscan Collection*, pp. 29 f.

⁵⁷ Pernice, *op. cit.*, pp. 15 ff.

⁵⁸ Neugebauer, *RM.* xxxviii-xxxix, 1923-1924, pp. 371 ff., 429 f., nos. 20-22; Conze, *Untersuchungen auf Samothrake* ii, pl. xlviii. Cf. also the handles said to have been found in the mound Duchova Mogila near Philippopolis, Seure, *BCH.* xlix, 1925, p. 435, fig. 13.

by the Metropolitan Museum in 1938 and dated by Miss Richter ca. 460–450 B.C.⁵⁹ Most interesting to us is their occurrence on four bronze footbaths with tripod bases similar to ours in general structure, though differing in decoration, found at Trebenishte near Lake Ochrida in graves of the late sixth century B.C.⁶⁰ Girdles of knobs on unfaceted handles appear on three similar footbaths from the same group of graves⁶¹ (fig. 4, p. 28) and on two miniature examples found at Lokroi Epizephyrioi in graves antedating the middle of the fifth century B.C.⁶²

The third characteristic, the prolonged handle attachment, is peculiar to bowls. As such prolongations often end in flower finials, we shall treat these two elements together. Pernice noted their occurrence on bronze bowls from Pompeii and Herculaneum and also – sometimes in vestigial form – on South Italian red-figured bowls, and argued that the bronze bowls must be Hellenistic. The flower finials appear also on the handles of a bowl in Ancona from the Gallic cemetery of Filottrano, a cemetery which has been dated by Jacobsthal at the very end of the fourth century B.C.,⁶³ and on two detached handles of the same kind in the Louvre and the British Museum.⁶⁴ The handles themselves are formed by two fighting soldiers and were attached by pendent palmettes. The same structure appears on two of the four handles of the great bronze louterion in Boston.⁶⁵ There the handles are formed not by soldiers but by wrestlers. These wrestlers are purely archaic in style and suffice to refute the Hellenistic date given the louterion by Pernice, who knew it only from photographs.⁶⁶ The other two handles of the louterion are faceted and decorated each with two girdles of knobs. The rim has a tongue pattern surmounted by beading. A handle with wrestlers in Darmstadt, resembling the Boston ones but later in style,⁶⁷ is dated by Neugebauer in the second half of the fifth century B.C.⁶⁸

Another class of bowl handles shows not only the flower finial but also the peculiar prolongations that serve as attachments. The handle itself is horizontal and is formed by two recumbent lions between which rises the flower finial. The attachments are snakes whose heads peer over the rim of the bowl. A small bowl with handles of this type was found at Sala Consilina in Lucania in a group of graves belonging to the archaic period.⁶⁹ The rim of the bowl has a tongue pattern surmounted by beading. The base is formed by a ring supported by three lion's feet. A larger and deeper, but otherwise similar, bowl in the Naples Museum⁷⁰ likewise belongs to the archaic period, so far as one can judge from Pernice's plate, and so do such of the stray handles of this type as have been illustrated.⁷¹ A handle from the Akropolis⁷² replaces the lions by two lizards crawling away from each other along a bow-shaped bar. Between them and at either end of the bar rise flower finials. The attachments are gorgoneia. This, too, belongs to the archaic period, as does a bowl in the British Museum on the handles of which we find instead of lions or lizards a man and woman

⁵⁹ *AJA*, xliii, 1939, pp. 189 ff., fig. 3.

⁶⁰ Below, list A, nos. 4–7.

⁶¹ *Ibid.*, nos. 1–3.

⁶² *Ibid.*, nos. 10, 13.

⁶³ *Ibid.*, no. 89; on the date of the cemetery see *JRS*, xxix, 1939, p. 102.

⁶⁴ *Ibid.*, nos. 90, 91.

⁶⁵ *Ibid.*, no. 85.

⁶⁶ *Op. cit.*, pp. 36 f. For parallels for the "Schilfblätter" in bronzes of the archaic and severe styles see Neugebauer's review of Pernice's work, *Gnomon* ii, 1926, p. 474.

⁶⁷ List A, no. 86. Cf. also nos. 87, 88.

⁶⁸ *AA*, 1937, col. 504.

⁶⁹ List A, no. 17.

⁷⁰ *Ibid.*, no. 18. There seems to be no beading, however, on the rim of this bowl. Cf. also no. 19 of list A.

⁷¹ *Ibid.*, nos. 23–26.

⁷² *Ibid.*, no. 28.

banqueter flanked by serpents.⁷³ According to Furtwängler, the bowl rests on a ring supported by lion's feet, but the catalogue of the Museum says nothing of this. Handles of the same structural type, but bare of all ornament except a very roughly shaped flower finial and some inscribed geometrical designs, are found on a small bowl with a ring base supported by three lion's feet from the late sixth century cemetery at Trebenishte.⁷⁴

Closest structurally to the handles of our footbath are, besides those of the bowls of late style found at Pompeii, a number of bow-shaped handles with prolongations for attachment ending in animal's heads. The most beautiful example known to me is that in figs. 5 and 6, a handle from Dodona in private possession, which the owner has kindly allowed me to publish.⁷⁵ The slots at the ends of the handles proper and at the back of the ram's heads fitted over the rim of the bowl. The U-shaped extensions were soldered to the wall of the bowl, and the ram's heads looked outward. The handle rose a few degrees from the horizontal. Its upper surface is decorated with flutings and, in the center, a four-petalled flower. The lower surface, which would rest on the fingers as the bowl was lifted, was left smooth for greater comfort. The Dodona handle lacks the large pendent palmettes which by increasing the surface of attachment further strengthen the handles of our footbath. It was made for a smaller, less heavy bowl, possibly one that was hammered, not cast. The combination of the sensitive modelling of the ram's face and neck with the decorative, still schematic treatment of the fleece and horns points to a date not later than the second quarter of the fifth century B.C. Of about the same date, but of rougher workmanship and less good preservation, is a pair of similar handles with ram's heads in the Metropolitan Museum (figs. 7 and 8).⁷⁶ They belong to the Cesnola Collection and so presumably come from Cyprus, a provenance made probable also by their patina and rather rough workmanship.⁷⁷ Some handles found on the Akropolis also belong to this structural type while differing in decorative details.⁷⁸ The attachments terminate in snakes' heads which peer over the rim into the bowl. At the center of the handle is a roughly shaped flower finial. The handles themselves are faceted. It is impossible to date these Akropolis handles from the descriptions and the small figure in De Ridder's catalogue, but it is probable that they belong to the pre-Persian period, like the great majority of the Akropolis bronzes.

We have seen that most of the decorative and structural elements of our footbath, as far as their essential character is concerned, could be dated anywhere from the archaic period to the end of the fourth century B.C. or later. How late, it seems at present impossible to say. The parallels from South Italian pottery, by which Pernice thought to anchor some of the bronze bowls from Pompeii in the Hellenistic

⁷³ List A, no. 29.

⁷⁴ *Ibid.*, no. 14.

⁷⁵ 6 3/16 in. (15.7 cm.) x 2 3/4 in. (7 cm.). Olive green patina with brown patches. The two holes at the ends of the handles proper, which show very faintly in fig. 6, are modern.

⁷⁶ List A, nos. 80, 81. The handles are not fluted but faceted, and the flower has only three petals, the fourth, which would not be visible from the outside, being merely omitted. Since their publication in the bronze catalogue, the handles have been cleaned and their stylistic character is more apparent.

⁷⁷ The handle, no. 725 in Richter, *op. cit.*, is not of this type. There are no slots to fit over the rim and the back of the heads of the animals is as flat as the rest of the attachment.

⁷⁸ List A, nos. 30-32; cf. also nos. 33-77 and no. 78.



FIG. 5.—BRONZE HANDLE FROM DODONA IN PRIVATE POSSESSION
(Photograph by Edward Milla)



FIG. 6.—BACK OF HANDLE SHOWN IN FIG. 5
(Photograph by Edward Milla)



FIG. 7.—ONE OF A PAIR OF BRONZE HANDLES IN THE CESNOLA COLLECTION
(Courtesy of the Metropolitan Museum of Art)



FIG. 8.—BACK OF HANDLE SHOWN IN FIG. 7
(Courtesy of the Metropolitan Museum of Art)

age, no longer have this force, once it has been shown that the elements common to the pottery and the bronzes go back to the archaic period. For if these elements began well before Hellenistic times, they may easily have lasted beyond them. Neugebauer, as a matter of fact, inclines to a Roman date for the Pompeian bowls.⁷⁹

One element, however, which we have not yet discussed in detail, has so far appeared only on bowls of the fifth century B.C. or earlier — the base composed of a ring resting on three lion's feet. This we found on the footbaths and a smaller bowl from Trebenishte, on a small bowl from Sala Consilina, on two miniature bowls from Lokroi Epizephyrioi and on a bowl with lion handles in the Naples Museum. Other examples and possible examples of bowls with a base of this type are given below in list A, nos. 9, 11, 12, 19, 29. Of these, nos. 9, 12, 29, and, so far as one can tell from Helbig's publication, 19, belong to the archaic period. No circumstances of discovery or elements of style are mentioned which would enable us to date no. 11. Many low tripod bases have been found in various Greek sanctuaries (see below, list A, nos. 94 ff.).⁸⁰ They were not limited to footbaths and other bowls but were used also for "kothons"⁸¹ and Campanian urns.⁸² Now and then in the Roman period we find a base of this general type — a ring resting on three feet, but higher — used as a support for deep kettles or bowls in which oil is being heated,⁸³ grapes gathered,⁸⁴ etc. But the appearance of such kettles and bowls is very different from that of our footbaths. For footbaths, low bases of this type seem to have been in general use only from about the last quarter of the sixth century (or perhaps earlier, see below, list B, no. 40), through the first three-quarters of the fifth, for it is only in this period that I have found footbaths with such bases represented in vase-paintings and other figured scenes. While I can by no means claim to have examined all known representations of the footbath in ancient art, and while it is, of course, quite possible that vase paintings or reliefs later than ca. 425 B.C. showing a footbath with a base of this type may exist, I think I have collected enough representations of the footbath in works of various dates to be able to say what forms of it were fashionable at a given period and thus to establish a probable date for our example. This under the circumstances is the most that one can do.

From the representations of the footbath in Greek and Roman art that I have collected the following sketch of its development can be drawn. Our type, a bowl resting on a ring supported by lion's feet, was popular from the time of the Phineus kylix⁸⁵

⁷⁹ *Gnomon* ii, 1926, p. 470.

⁸⁰ Furtwängler suggested λεοντόβασις as the name for tripod bases of this type. Our evidence shows, however, that λεοντόβασις, when used as a noun, means "a lion's foot." Usually it is an adjective meaning "lion-footed." For a discussion of the passages in which the word occurs see my forthcoming article.

⁸¹ Pernice, *JdI*, xiv, 1899, p. 65, fig. 6 (in Berlin); *Die hellenistische Kunst in Pompeji* iv, p. 12; Burrows and Ure, *JHS*, xxxi, 1911, p. 81, fig. 10 (from Rhitsona), p. 83, fig. 11 (in Bari). The Rhitsona "kothon" comes from a grave not much earlier than 500 B.C. I do not include these tripod bases of "kothons" in list A.

⁸² See below, list A, nos. 94, 95, 98.

⁸³ In the frieze with cupids making and selling oil in the House of the Vettii, Pompeii, Herrmann, *Denkmäler der Malerei*, pl. 22.

⁸⁴ On the lost mosaic with cupids gathering grapes, from Murviedro (Reinach, *Répertoire de peintures*, p. 106, 2). Only two feet appear, but at least three must have been intended.

⁸⁵ Below, list B, no. 7.

(pl. I, no. 7), through the first three quarters of the fifth century B.C. The handles vary in number, shape, and place of attachment. Most of the examples from the archaic period show four handles—two horizontal ones for lifting and two long ones, curved or angular, which seem to be attached only at one end, for carrying (see pl. I, nos. 1, 9, 14; no. 13 is a variant). Sometimes only these two carrying handles appear (e.g., pl. I, nos. 4, 16). This is an impractical form, for such handles are not easy to grasp when lifting a heavy basin full of water and, if they were at-



FIG. 9.—THESEUS AND SKIRON ON A VASE BY THE GALLATIN PAINTER IN THE METROPOLITAN MUSEUM
(Courtesy of the Metropolitan Museum of Art)

tached only at one end, would easily pull off. Was this a form that soon went out of fashion because of its impracticality, or has the painter merely failed to indicate the other two handles? A single pair of handles of the lifting type appears on an early red-figured kylix from Rhitsona,⁸⁶ on vases by the Pistoxenos painter, the Euaion painter (pl. I, no. 20), the Hektor painter and the Penelope painter (pl. I, no. 6), and on late archaic Etruscan reliefs (e.g., pl. II, no. 24).

In the last quarter of the fifth century our type was apparently superseded in Athens by a bowl with a central foot that is higher and more elaborate than a mere base ring and with a single pair of handles. Sporadic examples appear earlier (e.g., on a kylix

with the name Leagros, pl. II, no. 57). This type persists on South Italian vases, and a rather deep specimen appears on a fourth-century Greek mirror engraving (pl. II, no. 56). Handleless deep bowls of this type are also found in Pompeian paintings.⁸⁷

Another type, with three lion's feet attached directly to the bowl and no ring between, existed apparently as early as our type. The Metropolitan Museum posses-

⁸⁶ List B, no. 5.

⁸⁷ Representations of bowls of this type, both with and without handles, are collected below in list B, nos. 43-64 (see pl. II, nos. 44-60), where the various forms of handles are discussed and extant specimens of such bowls with particularly characteristic handles are mentioned.

ses an outsize Italic example which was found in Monteleone with the Etruscan chariot, and feet belonging to such bowls have been found in Olympia and elsewhere,⁸⁸ but this type does not seem to have been popular in Athens. There is a charming example on a fragment in the manner of the Syriskos painter, a much less attractive one on a fragment that has been attributed to the Dinos painter (pl. II, no. 28), and a rather sketchily drawn one on a vase by the Gallatin painter (fig. 9). The type seems, however, to have been a favorite in South Italy in the Hellenistic period. We find it on Apulian vases (e.g., pl. II, no. 30) and on a mosaic of Sosos' drinking doves from a house of the first style in Pompeii. Three bronze examples were found in Pompeii.

Shallow bowls with simple base rings appear in fifth-century Greek reliefs and deep ones in Roman reliefs and paintings.⁸⁹ Bowls with no bases, with or without handles, are found now and then from the early classical period on.⁹⁰

In the Antonine period a bowl with a highish conical foot appears, a shape which becomes common in Christian art not only for footbaths but also for bowls used for various purposes.⁹¹

The development of the footbath here outlined shows us that our bowl is probably dated by its base somewhere between 525 or earlier and 425. The closest datable parallels are furnished by the Sala Consilina bowl⁹² and a small tripod with a fifth century Ionic inscription from Dodona.⁹³ Feet like those of our bowl have been found on the Athenian Akropolis⁹⁴ and at Olympia.⁹⁵ For the rather detailed treatment of the toes and claws of our example we may compare a relief of about 460-450 B.C. in the Louvre.⁹⁶



FIG. 10.—DETAIL OF BRONZE HANDLE FOUND ON THE ATHENIAN AKROPOLIS

A date somewhere in the first three quarters of the fifth century is therefore suggested. Whether we can be more precise than this on the present evidence is doubtful. The palmettes might be a help if one could match them elsewhere, but this I have not been able to do. The palmettes on some handles from the Akropolis (fig. 10)⁹⁷ show the same absence of a central leaf or heart, and the handles themselves are faceted, with girdles of knobs like ours. Otherwise, however, there is little resemblance. What is peculiar to our palmettes is the tight central bundle of vertical or nearly vertical ridges, combined with the springy outward recoil of the ends of the leaves. The complete schematization which is yet instinct with a strong vegetable life perhaps favors a date somewhat early in the century, before naturalistic details crept in and schematization began to tend towards scrawniness and flatness. This, however, may be a subjective judgment and the palmettes a local—perhaps a

⁸⁸ Furtwängler, *Olympia* iv, p. 137. For extant specimens of such bowls, see below, p. 57 and for representations of them, list B, nos. 26-39. ⁸⁹ List B, nos. 65-76. ⁹⁰ *Ibid.*, nos. 77-83.

⁹¹ See below, list B, pp. 62-63.

⁹² List A, no. 17.

⁹³ *Ibid.*, no. 111.

⁹⁴ De Ridder, *Catalogue des bronzes trouvés sur l'Acropole d'Athènes*, nos. 94, 101. Cf. the tripods, list A, nos. 135, 136, 137, 139.

⁹⁵ Furtwängler, *op. cit.*, pl. li, no. 856, text p. 137. See, however, below, p. 49.

⁹⁶ Brunn-Bruckmann, *Denkmäler*, no. 231 b; G. M. A. Richter, *Animals in Greek Sculpture*, pl. v, fig. 13, pp. 6 f., 49.

⁹⁷ De Ridder, *op. cit.*, p. 53, nos. 156 ff., fig. 25. The palmette on a Bologna grave stone, dated by Ducati 390-360 B.C., also has no center, but does not resemble the palmettes of our footbath in other respects, *MonAnt.* xx, 1910, cols. 522, 715, no. 81, fig. 23.

provincial—peculiarity. The appearance of the footbath as a whole, the graceful yet strong contours of bowl and stand, suggest rather a date somewhere between 475 and 425 B.C. If we knew where it was made and could compare it with other products of the same place we might date it more closely and more confidently. It is said to have been found in Sicily or South Italy. In the case of bronzes, however, provenance, as Miss Richter has pointed out,⁹⁸ is not a safe criterion for place of manufacture. The fact, moreover, that some of the ornamental and structural elements found on our bronze are copied on South Italian terracotta vases proves nothing for the home of the bronze originals, which could, like the Attic vases which the South Italian potters also copied, be imported articles. Nor need all the bronze vases which show these elements belong to the same locality. The ram's head handles in the Metropolitan Museum, for instance, look like Cypriote imitations of far finer work from overseas. The soldiers on the bowl in Ancona and their fellows, on the other hand, and the wrestlers in Darmstadt look like Italic or Etruscan work. In short, it is impossible on the evidence now available to determine where our footbath was made.

LIST A

BRONZE BOWLS, HANDLES, AND TRIPODS RELATED TO THE FOOTBATH IN THE METROPOLITAN MUSEUM OF ART

List A comprises bronze bowls with bases in the form of a ring supported by three feet or with handles that are either attached by means of semicircular or U-shaped prolongations (and a few variants of such handles) or are composed of human or animal figures flanked by flower finials. The list also includes detached handles and detached bases of the types described. The first part of the list is devoted to bowls and handles, the second part (nos. 94 ff.) to detached bases. The first part is subdivided as follows: (1) bowls with handles attached by disks or blobs, or with no handles, but with tripod bases of the kind we have described (nos. 1–13); (2) bowls with bow-shaped horizontal handles attached by means of two semicircular prolongations (nos. 14–16); (3) bowls with horizontal handles formed by two lions with attachments in the form of serpents (nos. 17–27); (4) a variant of type 3, with lizards in place of the lions and gorgoneia in place of the serpents (no. 28); (5) another variant with banqueters in place of the lions (no. 29); (6) bow handles with flower finials in the center and attachments in the form of serpents (nos. 30–35); (7) bow handles with flower finials in the center and semicircular or U-shaped attachments ending in flower finials (nos. 36–78); (8) bow handles with similar attachments ending in ram's heads (nos. 79–81); (9) bowls with handles of similar structure but of later style decorated with vegetable motifs (nos. 82–83); (10) a bowl whose handles retain the serpents, not as structural elements, but merely as decorations (no. 84); (11) bowls with vertical handles in the form of wrestlers flanked by

⁹⁸ *AJA.* xliii, 1939, pp. 192 ff. An additional argument—the factor of chance in the preservation of bronzes (and other objects) on certain sites—is furnished by the 52 handles and 11 tripod bases from the Athenian Akropolis listed below (list A, nos. 24, 25, 28, 30–77, 93, 133–143), which are more indicative of the richness of the *Perserschutt* and the pitfalls of the statistical method than of the place of manufacture of the handles and bases themselves.

flower finials (nos. 85-88); (12) bowls with vertical handles in the form of soldiers flanked by flower finials (nos. 89-92); (13) a vertical handle in the form of lions flanked by flower finials (no. 93).

In most cases I have given only the principal publication, but for the "Pompeian" examples I have added further bibliography and noted conflicting statements on provenance.

Dimensions of bowls and tripods are given when available, but those of handles are not, unless they are unusual. Besides the full-sized footbaths, such as, for instance, most of the bowls from Trebenishte, and the miniature examples from Lokroi Epizephyrioi, there are a number of bowls in this list which seem rather small to have served as footbaths. We may recall the ποδανιπτηρίδιον in a Chalkotheke inventory (above, note 9), though it is, of course, not certain whether this was a smallish example or a miniature one.

The nucleus of this list was furnished by Furtwängler, *Olympia* iv, pp. 131, 136-7, 146-7, and added to by Pernice in vol. iv, pp. 10-12, 16, 36-37 of *Die hellenistische Kunst in Pompeji*, and by Neugebauer in his review of Pernice's work in *Gnomon* ii, 1926, pp. 470, 474. They collected in all some 41 examples, including detached tripod bases. Schwendemann in *JdI.* xxxvi, 1921, pp. 99 f., collected a number of tripod bases, viz some of those from Italy, Dodona, Olympia, Delphi, the Argive Heraion, and the Athenian Akropolis. He confused these bases, however, with objects of quite a different kind, the round, lion-footed platters or trays found in Boscoreale (*MonPiot.* v, 1899, pp. 100 f., nos. 31 ff. pl. xxii, 1-3), and so was led to assume that the tripod bases continued in use much later than was the case.

The examples added in the following list to those collected by Furtwängler, Pernice, Neugebauer, and Schwendemann have been drawn chiefly from catalogues of museums, reports of excavations and Keramopoullos' publication of bronzes from the store rooms of the Akropolis in the παράρτημα of the *Archaiologikon Deltion* i, 1915, pp. 20 ff. Others were pointed out to me by Miss Richter and Miss Alexander whom I have to thank for these and many other suggestions.

1. From Trebenishte, north of Lake Ochrida, Filow and Schkorpil, *Die archaische Nekropole von Trebenishte am Ochrida-See*, pp. 68 f., no. 81, figs. 72, 73. See our fig. 4. Height of bowl plus stand, 19.4 cm.; diam. of bowl 46.5 cm.; ht. of tripod 10.4 cm.; diam. of ring of tripod 25.2 cm. Undecorated rim. Bow handles, round in section, with a girdle of four knobs at center. Disk-like attachments, ornamented with engraved rosettes. Ring of base has tongue pattern surmounted by fluting. Lower edge of ring notched. Lion's feet rest on thin disks. Upper part of leg decorated with tongue pattern. Between leg and ring a narrow horizontal band decorated with herringbone pattern.

The cemetery from which this footbath, the footbaths, smaller bowls and handles, nos. 2-9 and 14, 15 and the tripods, nos. 100-105 come, is dated by Filow (*op. cit.*, p. 97 f.) at the end of the sixth century B.C. This date is based on the style of the latest object from the cemetery, a bronze volute krater (Filow, *op. cit.*, pls. vii, viii). Not all the objects, however, are as late as this, but belong to various periods within the sixth century.

Filow believes that nos. 1-5, 14, 100-103 of our list are barbarian imitations of Greek works, the geometric character of their decoration being un-Greek. Such incised geometric decoration, however, is found on a handle from Olympia which resembles the handles of the Trebenishte footbaths (*Olympia* iv, p. 147, no. 919, pl. lv), and on the tripod base of a "kothon" which probably comes from either Athens or Euboea (*JdI.* xiv, 1899, p. 65). Moreover, many of the tripods from Greek sites which form the end of this list show rather rough work.

2. From Trebenishte, Filow, *op. cit.*, p. 69, no. 82, figs. 74, 75. Ht. of bowl plus stand 20 cm.; diam. of bowl 51 cm.; ht. of tripod 11.8 cm.; diam. of ring of tripod 29.3 cm. Most of the bowl proper is missing. Handles similar to those of no. 1. Base also similar but with minor variations in the incised decoration.

3. From Trebenishte, Filow, *op. cit.*, pp. 69 f., no. 83, figs. 76, 77. Only the handles, the bottom of the bowl, and the tripod are preserved. Ht. of tripod 9.5 cm.; diam. of ring of tripod 26.5 cm. Handles similar to those of nos. 1 and 2. Ring of tripod decorated with leaf pattern which is replaced above the feet by a tongue pattern with circles in the ends of the tongues. Top of leg decorated with deep double zigzag. Trapezoidal intermediate member at attachment of foot to ring is decorated with a row of circles above and a row of vertical lines below.

4. From Trebenishte, Filow, *op. cit.*, pp. 70 f., no. 84, figs. 78-80. Ht. of bowl plus tripod 21.2 cm.; diam. of bowl 47.5 cm.; ht. of tripod 11.6 cm.; diam. of ring of tripod 22 cm. Handles hexagonal in section. Girdle of knobs more elaborate than those of preceding examples. Ring of tripod similar, but decoration of legs, intermediate member, and part of ring above legs more elaborate, though still geometrical. Feet stand on disks resting on rectangular bases.

5. From Trebenishte, Filow, *op. cit.*, pp. 70 ff., no. 85, figs. 81, 82. Rim and large part of bowl missing. Ht. of tripod 12.2 cm., diam. of tripod ring 23.8 cm. Hexagonal handles decorated each with three girdles of flattened knobs. Tripod similar to that of no. 4, but with variations in the geometric decoration.

6. From Trebenishte, Vulić, *JOAI*. xxvii, 1932, pp. 29 ff., no. 32, figs. 47, 48, 50; *AA*. 1930, col. 296, no. 10, cols. 287-8, fig. 14. Only the tripod, the handles, and fragments of the rim and bowl are preserved. On the two fragments of the bottom of the bowl are traces left by the ring of the tripod. Approximate diam. of bowl 45 cm.; ht. of tripod 11 cm.; diam. of ring of tripod 23.3 cm. Heptagonal handles with a girdle of three flattened knobs. Attachment formed by two concentric disks with incised rosettes; in the ends of the petals are incised circles. The tripod resembles that of our no. 3, except for minor variations in decoration.

7. From Trebenishte, Vulić, *JOAI*. xxviii, 1933, pp. 176 f., nos. 24, 25, figs. 87, 88. Only the tripod, the handles, and fragments of the bowl are preserved. Approximate diameter of bowl 45 cm.; ht. of tripod 12.5 cm.; diam. of ring of tripod 23 cm. The handles are not mates. One resembles, though not in every detail, the handles of no. 6; the other, larger, coarser, and of somewhat different shape and decoration, is evidently due to a repairer. The tripod is like that of no. 6, except in minor details (e.g., the feet rest on square bases).

8. From Trebenishte, Vulić, *op. cit.*, pp. 177-8, nos. 26-7, figs. 90, 91. The tripod, handles, rim, and many pieces of the bowl are preserved. Diam. of bowl 48.5 cm.; ht. of tripod 10 cm.; diam. of ring of tripod 24 cm. Handles are heptagonal in section and decorated with a torus moulding in the center. Attachments are undecorated disks. Ring of tripod is toothed. Feet rest on disks.

9. From Trebenishte, Filow, *op. cit.*, pp. 71, 74-5, no. 88, figs. 85-87. The tripod, the rim of the bowl, and some parts of the bowl adjacent to the rim are preserved. No handles were found and Filow does not mention any traces left by handles on either the rim or the parts of the wall of the bowl that are still extant. We must leave the question open whether the bowl was made without handles or whether these were lost before it was buried. Diam. of bowl 29 cm.; ht. of tripod 5.2 cm.; diam. of ring of tripod 10.9 cm. The rim of the bowl has a tongue pattern in relief surmounted by beading. The ring of the tripod is engraved with a tongue and dart pattern, the top of the legs with deep double zigzags. The feet rest on low disks. The workmanship of this bowl is much better than that of nos. 1-8 and nos. 14 and 100 ff. Filow calls it one of the best vases from Trebenishte and thinks it Greek work.

A number of tripods without bowls were found at Trebenishte. They are listed below under nos. 100 ff. One other small bowl with tripod base was found (below, no. 14) and perhaps a second one (see nos. 15, 104), but before describing them we shall list the bowls from other sites the handles of which, in their structure at least, resemble those of our nos. 1-9.

10. From Lokroi Epizephyrioi, *NS*. 1913, Supplement, p. 28, fig. 34. Diam. of bowl 10 cm. This example is a miniature and simply and roughly made. The bowl has a flat horizontal rim. The handles are attached to the rim with rough blobs and are bow-shaped, round in section, and decorated at the

center with a girdle of knobs. The ring of the base and the lion's feet attached to it show no decoration. The grave from which this example comes contained red-figured fragments of the severe style and an archaic bronze candelabrum. For a miniature tripod from the same grave, see below, no. 99 and for a miniature bowl on tripod stand from Lokroi Epizephyrioi, below, no. 13.

11. From Southern Italy, now in the Museum of Bari, no. 4043, Pernice, *Die hellenistische Kunst in Pompeji* iv, pp. 12 and 16. Pernice gives no dimensions, but calls it large, so it was presumably a full-sized footbath. He describes the handles as being fluted with a girdle of knobs ("Zacken-oder Perlenkranz") in the center and says they are attached to the body of the bowl by means of two round disks. The base is like that of the bowl illustrated by Pernice, *op. cit.*, pl. III (below, no. 18) and of the "kothon," *JdI.* xiv, 1899, p. 65, fig. 6. By this Pernice presumably means that it is a ring supported by three lion's feet. He dates the bowl in the fourth or third century B.C. but seems in this merely to be following his tendency to date down the examples of this type of base, for he cites no corroborating evidence. I should think rather that the base would date this bowl earlier than the last quarter of the fifth century.

12. From the Polledrara tomb ("tomba d'Iside"), Vulci, Micali, *Monumenti inediti*, pl. VIII, 2; Furtwängler, *Olympia* iv, p. 136. The diameter of the bowl would seem to be about 46 cm. According to Furtwängler, this bowl is in the British Museum and is placed on a tripod base consisting of a ring with lion's feet which, though neither shown nor mentioned in Micali's publication, probably belongs to the bowl. I have not been able, however, to find either the bowl or the tripod in the Catalogue of Bronzes of the British Museum. We cannot be certain, therefore, that this bowl belongs in our list. The handles are bow-shaped, faceted, and decorated each with three girdles of flattened knobs and are attached by disks slightly below the rim of the bowl. The rim has a series of vertical mallet-shaped ornaments which I have not found on other bowls of our class. For such ornaments see Furtwängler, *Olympia* iv, p. 136; Waldstein and others, *The Argive Heraeum* ii, p. 294, nos. 2215-2217, pl. CXXIII; Myres, *Handbook of the Cesnola Collection*, no. 4917, illustrated in Cesnola, *Atlas* iii, pl. XLVII, 4.

13. From Lokroi Epizephyrioi, NS. 1913, Supplement, p. 26, fig. 30. Diam. of bowl 13 cm. Miniature example roughly made. Plain horizontal rim. Handles are round in section and have a girdle of knobs in the center where they are bent in toward the rim, so that their shape as it appears above the rim is that of a sigma with top and bottom strokes parallel. The ends of the handles, to judge from the drawing in the *Notizie*, are bent outward to left and right and attached on the rim of the bowl so that we seem to have here a rough copy in miniature form of the U-shaped or semicircular prolongations used to strengthen the attachments of the handles in nos. 14 ff. of this list. The drawing may be deceptive in this respect, however. The ring of the tripod base is fluted. The feet seem to have been wrenched out of their original position. The bowl was found above the tiles covering a grave which contained a mirror belonging to the second quarter of the fifth century B.C.

14. From Trebenishte, from the same group of graves as nos. 1-9 and 100-105, Filow, *op. cit.*, pp. 72, 76, no. 89, figs. 88-90. Only the greater part of the rim, the two handles, and the tripod are preserved. Diam. of rim 24.8 cm.; ht. of tripod 4.4 cm.; diam. of ring of tripod 12 cm. Thick, broad, undecorated rim. Bow-shaped, horizontal handles with a roughly formed flower finial rising from the middle. The handles are attached by means of two semicircular prolongations which stop dead at the rim without any finial or other ornamentation. On the outside of the handles proper incised decoration of triangles and circles in three groups. On ring of tripod, leaf pattern, interrupted above the legs by tongue pattern with circles in the ends of the tongues. On rectangular plates between ring and feet two rows of circles. No disks or other supports under feet. Filow groups this bowl with the barbarian imitations of Greek work.

15. From Trebenishte, Vulčić, *AA.*, 1933, col. 466, no. 8. Two handles similar to those of no. 14. Did they perhaps belong to the vase set on tripod no. 104 (below) from the same grave?

Horizontal bow handles with a flower finial in the middle resembling those of nos. 14, 15, but with attachments in the form of disks, etc., or sometimes open hands, have been found in Southern Italy (Friederich, *Berlins antike Bildwerke* ii, p. 295, no. 1398b; Furtwängler, *Olympia* iv, p. 146); in Sicily (Gàbrici, *MonAnt.* xxxii, 1927, cols. 353-4, 356, fig. 149 m); at Olympia (Furtwängler, *op. cit.*, no. 912, pl. LV); Delphi (Perdrizet, *Fouilles de Delphes* v, p. 75, no. 314, fig. 254); and on the Athenian Akropolis (Δελτ. i, 1915, παράρτημα, p. 22, nos. 5801, 5803, fig. 7, α, β, γ, δ).

16. From the Idaean Cave, Crete, Halbherr, *Museo italiano di antichità classica* ii, 1888, cols. 739 f., atlas, pl. XII, no. 11. Horizontal bow-shaped handle, decorated with incised chevrons. In the middle, a large flower finial on a triangular stem. Roughly semicircular attachments end in lions' heads that look outward. Behind the lions' heads and the ends of the handle proper, slots for the rim of the bowl. The bowl itself must have been enormous, for the distance between the lions' heads is given by Halbherr as 33.4 cm.

17. From Sala Consilina in Lucania, NS. 1897, p. 164, fig. 10; *Hirsch Sale Catalogue*, Hotel Drouot, June 30th and July 1st and 2nd, 1921, p. 32, no. 233, pl. (9). In the Petit Palais, Paris. Diam. of bowl 33 cm. Rim decorated with tongue pattern surmounted by beading. The horizontal handles are formed by two lions lying down, with their backs to each other. Between them rises a flower finial. The attachments are U-shaped serpents whose heads look over the rim into the bowl. The base is formed by a ring resting on three lion's feet which stand on disks. Apparently there are volutes where the lions' legs meet the ring. The bowl came from a group of graves that contained bronze vases of the archaic period and Attic black-figured vases.

18. Said, perhaps erroneously, to be from Pompeii or Herculaneum, *Museo Borbonico* vi, pl. LXII, 2; Pernice, *op. cit.* iv, pl. III, p. 11; Tarbell, *Catalogue of Bronzes etc. in Field Museum of Natural History, Reproduced from Originals in the National Museum of Naples*, p. 100, no. 7, pl. XXXIX; Helbig, *BdI.* 1881, p. 194; Furtwängler, *Olympia* iv, p. 147; Neugebauer, *Gnomon* ii, 1926, p. 470. In the Naples Museum, inv. no. 73549. Diam. 33 cm., ht. 16 cm. Lip has tongue pattern in relief, but above it merely a plain fillet instead of beading. Handles like those of no. 17. Bowl much deeper than that of no. 17. Ring of tripod fluted. No volutes at juncture of feet and ring. No disks or other supports under feet. The information on the provenance of the bowl is contradictory. According to Helbig and Tarbell, it is "ascribed in the inventory of the Naples Museum to Herculaneum." Pernice, on the other hand, says that commercial photographs give the provenance as Pompeii, but that the older inventories have no information. Helbig notes further that the patina is different from that of bronzes from Herculaneum. Tarbell and Neugebauer date this bowl in the archaic period, but Pernice calls it "fifth to fourth century," a date which, to judge from the photographs, is too low.

19. From Ruvo, Helbig, *BdI.* 1881, p. 194. Diam. 34 cm.; ht. 12 cm. Similar to no. 18 except that, to judge at least by the dimensions, the bowl is shallower.

20, 21, 22. Said to be from Pompeii. Three detached handles of the same type as those of nos. 17-19, Helbig, *BdI.* 1881, p. 194; Furtwängler, *Olympia* iv, p. 147; Pernice, *op. cit.* iv, p. 11. Naples 72914-72916. Pernice says that these handles are among the "Pompeian" finds (the quotation marks being his), but Helbig states that the inventory gives no indication of the provenance of the three handles.

23. From Olympia, Furtwängler, *Olympia* iv, pp. 146 f., no. 918, pl. LV. Similar handle.

24, 25. From the Athenian Akropolis, de Ridder, *Catalogue des bronzes trouvés sur l'Acropole d'Athènes*, pp. 68 f., nos. 207-208, figs. 42-44. Handles. No. 207 is similar to our nos. 17-23, but far superior in workmanship to no. 23. Only one lion, part of the other one, and the central rosette are preserved. Of no. 208, only part of one lion is preserved.

26. Of unknown provenance, de Ridder, *Les Bronzes antiques du Louvre* ii, p. 104, no. 2629, pl. 95. Handle similar to the preceding ones, but of particularly elaborate and fine workmanship.

27. Of unknown provenance, Furtwängler, *Olympia* iv, p. 147. Furtwängler says that there is a detached handle of the same type as those we have just described in the British Museum, but I have been unable to find it in Walters' Catalogue.

28. From the Athenian Akropolis, de Ridder, *Catalogue des bronzes trouvés sur l'Acropole d'Athènes*, pp. 67 f., no. 206, figs. 40, 41; *JHS.* xiii, 1892-1893, pp. 238-9, fig. 10. Handle. A variant of the form represented by nos. 17 ff. In place of the lions we find two lizards. The flower finial appears not only between the lizards, but also at either end of the handle. The attachments are not snakes but gorgoneia.

29. Of unknown provenance, Walters, *Catalogue of the Bronzes in the British Museum*, p. 81, no. 562; Furtwängler, *Olympia* iv, p. 147. Diam. 38.8 cm., ht. 11.4 cm. Bowl with handles of the same structure as our nos. 17 ff., except that for the lions are substituted a man and a woman banqueter reclining. Apparently there are no flower finials; at least Walters and Furtwängler do not mention any. The attachments end in serpent's heads, as in nos. 17-27. The style of the figures is archaic. According to

Furtwängler, the bowl is "completely preserved including its ring-shaped support on three lion's feet." Walters, however, does not mention this support.

30-32. From the Athenian Akropolis, de Ridder, *op. cit.*, pp. 66 f., nos. 201-203, fig. 39. Three handles of the same structural type as that shown in nos. 14 ff. The handle itself, however, is formed not by two lions, but by a faceted bar with a flower finial in the center. The attachments are snakes as in nos. 17 ff. De Ridder speaks of these handles as horizontal, but from his illustration it would seem as if they rose above the rim of the vase at a slight angle.

33. From the Athenian Akropolis. Another handle of this type, but round in section, is mentioned by Keramopoulos as one of the group described under no. 5802 in Δελτ. i, 1915, παράρτημα, p. 22.

34, 35. From the Athenian Akropolis, de Ridder, *op. cit.*, p. 67, nos. 204-205. Two handles, one of them (no. 205) being fragmentary, resembling our nos. 30-32, "but with bobbins at the attachment of the volutes." Cf. no. 78 below.

36-51. From the Athenian Akropolis, Keramopoulos in Δελτ. i, 1915, παράρτημα, p. 22, no. 5802, fig. 7, ε, ζ, η. Sixteen horizontal handles, round in section, with a flower finial in the middle, and with semicircular prolongations terminating in a flower finial or disk. On one, or perhaps more, of these (fig. 7, ε) the semicircular prolongation has been filled in, so to speak, so that a broad, roughly half-moon shaped attachment results.

52-77. From the Athenian Akropolis, Keramopoulos, *op. cit.*, pp. 22-3, no. 5804, fig. 7 θ, ι, κ. Twenty-six horizontal handles, tetragonal in section, with flower finial in the middle and with attachments in the form of semicircular prolongations ending in flower finials.

78. From the sanctuary of Malophoros, Selinus, Sicily, Gabrici, *MonAnt.* xxxii, 1927, cols. 355-6, fig. 150. Horizontal handle, whether round or faceted it is impossible to tell from the drawing, with flower finial in the middle and with attachments in the form of prolongations ending in flower finials. One of these attachments with its flower finial is missing. At the boundaries between handle and attachments are bobbins. For the latter cf. nos. 34, 35 above.

79. From Dodona, above, p. 35-36, figs. 5 and 6.

80, 81. Perhaps from Cyprus, G. M. A. Richter, *Greek, Etruscan, and Roman Bronzes*, p. 249, nos. 723-4; above, p. 35-36, figs. 7 and 8.

82. From Herculaneum or Pompeii, Pernice, *op. cit.*, pp. 10 f., figs. 11-12. Naples 73, 731. Dimensions not given. Bowl without base, with bow-shaped handles decorated with vegetable motives, with what looks like a rose in the center. The attachments are formed by approximately semicircular prolongations with leafy decorations which end at the rim in conventionalized flowers ("rosettes"). Pernice seems to imply that this bowl is Hellenistic, while Neugebauer, *Gnomon* ii, 1926, p. 470, thinks it later.

83. From Pompeii, Stabiae, or Herculaneum? *Museo Borbonico* vi, pl. LXIII, 2, 3; Tarbell, *Catalogue of Bronzes, etc., in Field Museum*, pp. 130 f., no. 189, pl. xci; Naples 73535. Bowl with base ring. Dimensions as given in the *Museo Borbonico*, diam. "palmo uno once 5 e un quinto," ht. "once 4 e un quinto." It perhaps means diam. about 38 cm., ht. about 9 cm. In the center of the bowl a medallion in relief with two Erotes under a tree. On horizontal surface of rim, tongue pattern, on outer edge, beading. Handles, of same structure as those of no. 82, are decorated with ribbons and leaves and end in finials which look like pine cones, but are described in the *Museo Borbonico*—perhaps for literary reasons—as ivy clusters. On the date see no. 82.

84. From Pompeii, Stabiae, or Herculaneum (?). Tarbell, *op. cit.*, p. 131, no. 190, pl. xc; Pernice, *op. cit.*, pp. 10 f., fig. 13. Naples 73953. Bowl with base ring. The horizontal banded handles are attached by means of broad plates in the shape of a segment of a circle. At each end of the handles above the rim is a flower finial. On either side of the handles from the broad plates by which they are attached spring crested snakes whose heads rest on the rim of the bowl. The structural elements which we have observed in nos. 14 ff. have degenerated into mere ornaments. The bowl is dated by Pernice in the Hellenistic period or earlier, because similar banded handles and unfunctional flower finials appear in South Italian red-figured bowls. Since, however, for all we know at present, these elements may have persisted even after the Hellenistic period, we cannot be certain that this bowl is not later.

85. From Picenum, *Museum of Fine Arts, Boston, Twenty-eighth Annual Report for the Year 1903*, p. 61, no. 12; *BMFA*, i, 1903, p. 28; Pernice, *op. cit.*, iv, pp. 36 f., pl. ix. Large bronze bowl with plain

Base ring and four handles. Diam. of bowl 72 cm.; ht. to rim about 20.5 cm.; ht., including wrestlers, 28 cm.; ht. of base 2.3 cm.; diam. of base at top 24.1 cm.; diam. of base at bottom 20.6 cm. Dr. Caskey, who kindly sent me the above measurements, adds the following information: "The base is ancient and I see no reason for supposing that it does not belong. The walls of the base are thicker than those of the bowl." Further important information, which shows that all four handles were made for the bowl, is given by Dr. Caskey in Pernice, *op. cit.*, p. 36, note 19. The rim of the bowl has a tongue pattern surmounted by beading. Two of the handles are formed each by two wrestlers standing, as it were, on the rim, who lean forward, one grasping the wrists of the other, and butt their heads against each other. Behind each wrestler a flower finial on a stem rises from a cluster of leaves. In front of his forward foot there is attached a long-drawn-out S-scroll on the upper part of which he rests his shin. The other two handles are faceted and decorated each with two girdles of knobs. They swing in bobbins which are attached at the rim and have pendent palmettes below fastened to the wall of the bowl. The two wrestler handles are attached by four pendent palmettes, one under each wrestler. That the wrestlers, and consequently the bowl, belong to the archaic period is obvious to anyone who sees the original. To date it more exactly within the period one would have to examine it outside the case. As the bowl itself is very fragile, this seemed inadvisable at the time I was at the Boston Museum. For parallels for the long leaves out of which the flower finials spring see Neugebauer, *Gnomon* ii, 1926, p. 474. The presence of four handles recalls the footbaths with four handles on Attic red-figured vases of the severe style (see below, list B, nos. 1-3, 9-14, 90, 91). The Boston bowl, however, is too large for a footbath and must be a louterion, a wash bowl. Large louteria without bases and with no handles or very simple ones appear on red-figured vases, e.g., *CVA*. Athens, fasc. 1, III, Ic, pl. 3, 2, a kylix signed by Pamphaios, Beazley, *ARV*. p. 103, no. 66; *CVA*. Brussels, Cinquantenaire, fasc. 1, III, Ic, pl. 4, 2 by the Ambrosios Painter (Beazley, *ARV*. p. 72, no. 26); Sudhoff, *Aus dem antiken Badewesen* i, p. 26, fig. 18, a kylix related to the work of the Pithos Painter (Beazley, *ARV*. p. 118, no. 6). Sudhoff took the last example to be a footbath which the young man has propped on a cushion, but though the basket on the wall suggests a dining room and hence a podanipter, the other two scenes I have cited, especially the Athens one with its very large bowl, make it more probable that a large wash basin or louterion is meant.

86. From Borsdorf, near Nidda in Oberhessen, Bullé, *Der schöne Mensch*², pl. 90, p. 60; Ducati, *Storia dell' arte etrusca*, pl. 214, fig. 528, pp. 451, 471, note 128. Handle in the Landesmuseum, Darmstadt. Handle formed by two wrestlers like those of no. 85 but of simpler form and later style. The wrestlers both face the same way, while the wrestlers on the Boston bowl face one outward and one inward. There are no leaves under the flower finial and the S-scroll is replaced by a simple volute. Both volute and flower finial rise from pendent palmettes which, too, are of simpler form than those of the Boston bowl. The Darmstadt handle is dated by Neugebauer, *AA*. 1937, col. 504, in the second half of the fifth century B.C.

87, 88. Provenance not stated, Ducati, *Guida del Museo civico di Bologna*, p. 81, *Storia dell' arte etrusca*, p. 471, note 128 (not illustrated in either place). Two bowl handles formed by wrestlers. Ducati calls them inferior to no. 86, but fails to say whether they are otherwise similar. He seems to imply that they form a pair (due manglie di un calderone).

89. From the Gallic cemetery of Filotranno in Picenum, Dall'Osso, *Guida illustrata del Museo Nazionale di Ancona*, p. 267, figured on pp. 243-6; Marconi and Serra, *Il Museo Nazionale delle Marche in Ancona*, p. 54. Bowl with two handles and no base. Diam. 40 cm.; ht. 10 cm. Each handle is formed by two warriors who grasp each other by the back of the head and draw their swords. Behind each warrior is a flower finial and in front a volute on which he rests his knee. These rise from pendent palmettes as in nos. 85 ff., but the palmettes themselves seem to be rather larger than those of no. 86. With the bowl were found three bronze lion's feet that rest on thick disks with channelled edges. No bronze ring, however, is mentioned as having been found with them and the feet themselves do not look like the feet of the small tripods that support earlier bowls of our type, for the leg seems too short in proportion to the heavy foot to serve such a purpose and I see nothing at the top by which the feet could have been attached to a ring. If they were, as Dall'Osso suggests, the feet of some piece of furniture that held the bowl, they may have belonged to a wooden stand of some sort. Dall'Osso suggests a sideboard (trapezoforo).

90. Of unknown provenance, de Ridder, *Les Bronzes antiques du Louvre* ii, pp. 104 f., no. 2631, pl. 95. Handle similar to those of no. 89.

91. Of unknown provenance, Walters, *Catalogue of the Bronzes in the British Museum*, p. 112, no. 674. Handle similar to nos. 89 and 90.

92. Of unknown provenance, Sacken and Kenner, *Die Sammlungen des K. K. Münz- und Antiken-Cabinetes*, p. 265, no. 43; Sacken, *Die antiken Bronzen des K. K. Münz- und Antiken-Cabinetes in Wien* i, pl. XLV, 7. Two figures from a similar handle. The palmettes with the volutes and flower finials and the left foot of one of the warriors are missing.

93. From the Athenian Akropolis, de Ridder, *Catalogue des bronzes trouvées sur l'Acropole d'Athènes*, p. 50, no. 149, fig. 22. Handle formed by two lions devouring an antelope. It was attached by two pendent palmettes, one of which is missing. Behind the hind foot of the lion is a flower finial, in front of this foot, a volute. I.e. we apparently have the same scheme here as in nos. 85-92, with lions substituted for human figures. It is impossible to date this handle from de Ridder's photograph, which is far from clear.

The two bronze lions devouring a deer in Copenhagen, Arndt-Amelung, *Einzelaufnahmen*, no. 1487; Reinach, *Répertoire de la statuaire* iii, 208, look so much like this that it is difficult to believe that they are not part of another handle of the same type, with merely minor variations (such as the position of the stag's head). However, the text of Arndt-Amelung describes the Copenhagen lions as a relief ("vollgeossnes . . . Bronzerelief").

TRIPODS

94. From Capua, *MonInst.* xi, pl. vi, 2. Notched ring. The tripod was perhaps used as a support for a Campanian urn. Furtwängler, *Olympia* iv, p. 136, seems to imply that this was the case, but von Duhn, *AdI.* 1879, p. 120, expressly says that it does not belong to the urn which it is shown supporting in the plate of the *Monumenti*, but merely that it may have supported a similar urn. He notes that the tripod showed traces of cloth, in which such urns were wrapped. He adds that there were similar bases of iron, some of them in a bad state from oxidization, in the *magazzini* of Signor Doria.

95. From Capua? *AdI.* 1879, p. 133, no. 4; 1880, p. 345; Walters, *Catalogue of the Bronzes*, pp. 79 f., no. 559. It supports a Campanian urn.

96, 97. From South Italy, Furtwängler, *Olympia* iv, p. 131. They served as the supports of the large kettles with which they were found. Naples Museum, nos. 74745, 74749.

98. From South Italy (?), *AdI.* 1879, p. 136, no. 12; 1880, pp. 345 f.; Walters, *op. cit.*, p. 81, no. 561. It supports a Campanian urn.

99. From Lokroi Epizephyrioi, *NS.* 1913, supplement, p. 28, fig. 34. Diam. 6 cm. Found in tomb no. 739 with fragments of vases of the red-figured severe style. Ring is decorated with vertical striations which are interrupted above the legs by rectangles with saltire crosses. See also above, nos. 10 and 13.

100. From Trebenishte, from the same cemetery as nos. 1-9 and 14, 15, Filow, *Die archaische Nekropole von Trebenishte*, pp. 70, 73, no. 86, figs. 83, 84. Ht. 10.9 cm., diam. of ring 24.3 cm. Broken in three pieces and mended in antiquity. Ring ornamented by leaf pattern which is interrupted above the legs by two rows of tongue pattern separated by a row of small circles. On upper part of legs, tongue pattern. On intermediate member between legs and ring, herringbone pattern, bounded on either side by row of circles. Feet rest on thin disks. With the tripod were found slight remains of the bowl.

101. From Trebenishte from the same cemetery, Filow, *op. cit.*, p. 71, no. 87. Ht. 11 cm., diam. of ring 26 cm. Similar to tripod of our no. 2. With the tripod was found a handle resembling those of no. 4, but no remains of the bowl were found.

102. From Trebenishte, from the same cemetery, Filow, *op. cit.*, p. 72, no. 90. Ht. 5.1 cm., diam. 10.4 cm. Decoration similar to that of tripod of no. 14 above.

103. From Trebenishte, from the same cemetery, Filow, *op. cit.*, p. 72, no. 91. Ht. 4.2 cm., diam. 7.6 cm. Decoration like that of no. 102.

104. From Trebenishte, Vulić, *AA.* 1933, col. 466, no. 6. Ht. 4 cm.; diam. of ring 15 cm. Ring is fluted. Lion's feet rest on disks. In the same grave was found the bottom of a bronze vase with a circle on the under side, 17 cm. in diameter, which must be the impression of this tripod, on which the vase originally rested (Vulić, *op. cit.*, no. 11). Vulić does not say what the shape of the vase was, but his

description suggests a bowl. If it was a bowl, it would seem likely that the two handles found in the same grave (above, no. 15) also belonged to it.

105. From Trebenishte, from the same grave as no. 104. Vulčić, *AA*. 1933, col. 466, no. 7. Ht. 4.5 cm.; diam. of ring 7 cm. Similar to no. 104 but smaller.

106. From Dodona, Carapanos, *Dodone et ses ruines*, pl. xli, 1, p. 84. Ht. 5 cm., diam. 7 cm. Ring decorated with schematized leaf pattern.

107. From Dodona, Carapanos, *op. cit.*, p. 84, pl. xli, 2. Ht. 4 cm., diam. 9 cm. Ring decorated with schematized leaf pattern surmounted by herringbone pattern.

108. From Dodona, Carapanos, *op. cit.*, p. 84, pl. xli, 7. Ht. 2 cm., diam. 8 cm. Fragmentary. Ring decorated with vertical striations.

109. From Dodona, Carapanos, *op. cit.*, p. 84. Ht. 6 cm., diam. 12 cm.

110. From Dodona, Carapanos, *op. cit.*, p. 84. Ht. 2 cm., diam. 8 cm.

111. From Dodona, Carapanos, *op. cit.*, p. 40, pl. xxiii, 2 and 2 bis. Ht. 5 cm., diam. 12 cm. Plain ring, with fillet at bottom and at top fillet surmounted by beading. The legs show a tripartite division similar to those of our footbath and are decorated at the top with a curving band ending at either side in volutes. There are no palmettes, however. On the ring is a dedication in the Ionic alphabet. The letters seem to be of the fifth century B.C. (note especially the slanting nu with short second leg).

112. From Olympia, Furtwängler, *Olympia* iv., no. 853, pl. li, p. 136. Upper diam. 19 cm., lower diam. 23 cm. Ring decorated with vertical striations. The feet rest on small rectangular pedestals which in turn rest on a supporting ring.

113. From Olympia, Furtwängler, *op. cit.*, p. 136, inv. no. 14014. Small, complete example, apparently like no. 112. No dimensions given.

114-119. From Olympia, Furtwängler, *loc. cit.* Fragments of small examples.

120-122. From Olympia, Furtwängler, *loc. cit.* Fragments of larger examples.

123. From Delphi, Perdrizet, *Fouilles de Delphes* v, p. 71, no. 259, fig. 229. Fragmentary. Ht. 13 cm. Fluted (?) ring decorated above foot with superimposed bands of tongue pattern with circles in ends of tongues. Foot rests on thin disk.

124. From Delphi, Perdrizet, *op. cit.*, p. 71, no. 260. Fragmentary. Ht. 8 cm. Single row of tongues incised on ring.

125. From Delphi, Perdrizet, *op. cit.*, p. 71, no. 261. Ht. 7.5 cm. Similar to no. 124.

126. From Delphi, Perdrizet, *op. cit.*, p. 71, no. 262. Ht. 7 cm. Egg pattern on ring.

127. From Delphi, Perdrizet, *op. cit.*, p. 71, no. 263. Ht. 4.5 cm. Egg pattern on ring.

128. From Delphi, Perdrizet, *op. cit.*, p. 71, no. 265. Ht. 4.5 cm. No ornament visible on ring, which is badly oxidized.

129. From Delphi, Perdrizet, *op. cit.*, p. 71, no. 266. Ht. 4 cm. Ring decorated with series of vertical lines.

130. From the Argive Heraion, Waldstein, *The Argive Heraeum* ii, no. 2228, pl. cxxiv, p. 296. Fragmentary. Ht. 4.8 cm. Edge of ring notched.

131. From the Argive Heraion, Waldstein, *op. cit.*, no. 2227, pl. cxxiv, pp. 295 f. Fragmentary. Ht. 2.7 cm. Ring has fillet (?) at top. Between leg and ring a transitional member; whether this is decorated or not it is impossible to tell from the plate.

132. From the Argive Heraion, Waldstein, *op. cit.*, no. 2230, p. 296, pl. cxxv. Fragmentary. Ht. 7.6 cm. Ring decorated with engraved tongue pattern. "Moulding at top (of leg) with simple volute at either side."

133. From the Athenian Akropolis, de Ridder, *Catalogue des bronzes trouvés sur l'Acropole d'Athènes*, p. 26, no. 60, fig. 5. Ht. 4 cm.

134. From the Athenian Akropolis, de Ridder, *op. cit.*, p. 26, no. 61. Ht. 1.7 cm. "(Couronne) ornée d'une torsade gravée."

135. From the Athenian Akropolis, de Ridder, *op. cit.*, p. 29, no. 68. Ht. 5.7 cm. Fragmentary. Leg surmounted by two Ionic volutes. Ring decorated with egg and dart design.

136. From the Athenian Akropolis, de Ridder, *op. cit.*, p. 29, no. 69. Ht. 5.1 cm. Fragmentary. Leg surmounted by two Ionic volutes with an egg design on the band between them. Ring fluted.

137. From the Athenian Akropolis, de Ridder, *op. cit.*, pp. 29 f., no. 70. Ht. 5.3 cm. Fragmentary. Leg surmounted by two Ionic volutes with a plain band between. Ring fluted.

138. From the Athenian Akropolis, de Ridder, *op. cit.*, p. 30, no. 71. Ht. 4.5 cm. Fragmentary. Foot is formed by horse's hoof. No volutes. Ring decorated with egg pattern.

139. From the Athenian Akropolis, de Ridder, *op. cit.*, p. 30, no. 72. Ht. 6.4 cm. Fragmentary. Foot similar to that of no. 138. Leg surmounted by two Ionic volutes. Ring decorated with geometric pattern (parallel vertical lines and a rectangle divided by two diagonals).

140-143. From the Athenian Akropolis, Δελτ. i, 1915, παράρτημα, p. 26 and fig. 22. Fragments. The heights vary from 3.5 to 10.5 cm.

144. From Phoiniki, near the Asopos, de Ridder, *Catalogues des bronzes de la Société Archéologique d'Athènes*, p. 6, no. 10. Fragment with inscription. "Oves au trait sur la tranche."

145. From Lindos, among the "objets des premières époques archaïques," Blinkenberg, *Lindos* i, p. 223, no. 745, pl. 31. Diam. 8.5 cm. Fragmentary. Ring decorated with schematic leaf pattern. Disks under lion's feet.

146. From Lindos, with the same chronological classification, Blinkenberg, *op. cit.*, p. 223, no. 746. Ht. 2.2 cm., diam. 5.2 cm. Ring decorated with horizontal striations. No disks under lion's feet.

147. Of unknown provenance, de Ridder, *Bronzes antiques du Louvre* ii, no. 2571, pl. 92, p. 99. Ht. 10.3 cm., diam. 20 cm. Notched ring. At attachments of feet rectangular pieces of bronze ornamented with egg pattern and a "grènetis." Feet rest on square bases.

148. Of unknown provenance. Stand in Boston, Museum of Fine Arts, inv. no. 96, 678. This is very much like the base of the footbath in the Metropolitan Museum, the only apparent difference being the insertion of a second volute between the little palmette and the ring.

A small tripod (ht. 5.7 cm., diam. 15.4 cm.), found in the Idaean cave in Crete (Halbherr, *Museo italiano di antichità classica* ii, 1888 [text], cols. 743-5, no. 3), has a fluted ring resting on three lion's feet. It differs from the examples listed above, however, in the addition to the fluted ring of a third element, a horizontal ring 3.5 cm. broad decorated with a leaf pattern and rising in the center to form a kind of lip or calyx-like member which served perhaps as the support of a vase. A fragment of another such tripod (ht. 10.5 cm.) consisting of a leg surmounted by a piece of the ring and a small piece of the horizontal disk was found on the same site (Halbherr, *op. cit.*, col. 745, no. 4, Atlas, pl. xii, 19).

Many feet resembling those of tripod stands have been discovered in excavations and are mentioned in the catalogues and other publications referred to above in the list of extant tripod bases. Among them are numerous examples surmounted by Ionic volutes more or less resembling the feet of the tripod that supports the footbath in the Metropolitan Museum. I have not thought it worth while to make a list of the feet with volutes, however, for they were by no means limited to low tripod stands and continued in use for a long period of time, appearing frequently in Pompeian bronzes. See Furtwängler, *Olympia* iv, p. 137 and Tarbell, *Catalogue of Bronzes, etc., in Field Museum*, . . . Reproduced from *Originals in the National Museum of Naples*, plates, *passim*.

LIST B

REPRESENTATIONS OF THE FOOTBATH IN GREEK AND ROMAN ART

The footbaths that appear in figured scenes may be classified according to (1) form of base, (2) form of bowl, (3) number and form of handles. If we take (1) as the basis of our classification, we find the following forms: (I) Base consists of a ring supported by three feet. (II) Base is formed by three feet attached directly to bowl without intervening ring. (III) Base consists of a series of mouldings. (IV) Base is a mere ring. (V) There is no base at all, but bowl rests directly on flattened

bottom. Besides these there are a few miscellaneous forms, which we shall, merely for convenience, lump together as Class VI.

Our list is based for the most part on photographs, which are not always clear, and drawings, which may not be accurate. Wartime conditions have in many instances made it impossible to check details by better photographs or by exact descriptions of the originals. Hence, there are doubtless some errors in assigning examples to Class III instead of to Class IV, or *vice versa*. In a few cases, examples of Class V may have been confused with those of IV or III.

To decide what to include in this list was difficult. The subject of the present article is ancient footbaths, not ancient bowls. But footbaths, as we have seen, were used for many purposes besides washing the feet. Almost any bowl, on the other hand, was, in the Roman period, at least, put into service as a footbath—a fact which may have led to the replacement in colloquial speech of ποδανιπτήρ by λεκάνη. The practical, if not entirely logical, solution that presented itself was to include (1) all representations of bowls, however used, with a base consisting of a ring supported by three feet (since the dating of such bowls was the main purpose of this study) and (2) all representations of particularly distinctive types of bowls which appear in foot-washing scenes, but are not limited to them. These distinctive types are (a) all those comprised in class II, i.e., with three feet attached without an intervening ring, and (b) those bowls of class III which are characterized not only by the moulded foot of this class but also by a wide, shallow shape and either column-krater or bow handles attached at the rim. Outside these types, the list includes only bowls or other vessels used for washing the feet; bowls used for bathing of any kind (including the bathing of infants and the washing of hair) that are smaller than the average loutērion; surgeon's basins; and bowls used in sickroom scenes. The one exception is no. 84, a bowl with a peculiar base which is included because it evidently served the same purpose, whatever that was, as nos. 22–25.

To the list of representations of bowls of class II and of the more distinctive types of class III, a brief description of extant bowls of these kinds in bronze, terracotta, and marble is appended, but I have not attempted a complete inventory of extant examples.

I wish to thank Mrs. Alexander Pinney, who generously turned over to me a catalogue of subjects of Greek vase-paintings which she is preparing, and Miss Alexander, who pointed out a number of examples which I should otherwise have missed.

I wish also to thank Mr. Lindsley F. Hall for his beautiful drawings of selected examples of classes I–III on pls. I and II, which give a graphic history of the main types of the footbath from the time of the Phineus kylix (no. 7) through the period of the South Italian red-figured style. Classes IV and V and the shapes lumped together as class VI were not drawn, as they are so miscellaneous in character that the result would not have been rewarding. No. 89, it is true, begins a new type, but this type concerns Christian rather than Classical archaeology. We have tried to make the drawings accurate, but have not scrupled to “restore” one side of a bowl when it was cut off by the frame of the picture (as e.g., no. 16). No. 13 was drawn from the photograph on pl. XIV of *MonPiot*. xiii, as some of the details of the drawing

on pl. XIII were confusing and we feared to misinterpret them. No. 4 is the only example for which we had neither a photograph nor a good modern drawing to guide us. As it is the only representative of its type it had to be included, even though its details are not trustworthy, the vase from which it comes having been repainted.

Though the last number in this list is 93, it actually includes 97 examples, 4 (nos. 4a, 38a, 38b, 57a) having turned up after Mr. Hall had completed his drawings and entered the numbers under each example. While 38a and 38b resemble no. 38, and 57a looks like a later development of 57, 4a was not enough like any other example to be attached to it and so is merely put in its chronological place.

CLASS I

Base consists of a ring supported by three feet. Sometimes (as in nos. 6 and 7) only two feet appear, but this must be due to the painter's carelessness, since a third foot is essential for stability.

We have subdivided this class, basing our main division on the shape of the bowl, i.e., on the presence or absence of an offset lip, and a further subdivision on the number and form of the handles. By "form of handles" is meant not their decorative details, but their essential shape as determined by their function. For two main types appear, the strong, horizontal arched or rectangular handles on which one could get a good grip when lifting one of these heavy, water-filled bowls (cf. nos. 1, 2, 5, below) and the pretty but less practical long, curving or angular handles which seem often to be attached only at the lower end and which were better suited for carrying a bowl when empty than for lifting it when full (see no. 9, below). Sometimes these carrying handles are scroll- or S-shaped (nos. 17, 18), sometimes they end in snake's heads (nos. 1, 4, 15, and perhaps 14), and sometimes they are decorated with roundels at the bend (nos. 14, 15, and cf. also no. 90; for roundels cf. *Olympia* iv, pl. LV, no. 913). In a drawing by Makron and one by his follower, the Clinic Painter, we find carrying handles of an entirely different type—vertical loops (12) or lugs (13). It seems possible that the painters intended by these to represent handles of the column-krater type, which appear now and then on footbaths of classes II and III (below, nos. 28, 42, 43–46), sometimes rather awkwardly drawn. Among the lifting handles the most interesting to us are those which are decorated with projections (below, nos. 9, 10, 19), for such projections may represent girdles of knobs like those on the footbath in the Metropolitan Museum. Another variety of lifting handle that calls for mention is the swinging type that appears on four Etruscan examples (below, nos. 22–25) and one Attic one (no. 21; cf. also no. 26 in class II).

A

Bowl with offset lip

(a) With four handles, two horizontal ones for lifting and two long, projecting handles for carrying.

1. On a kylix by Olto, in Copenhagen, *CVA*. Copenhagen, fasc. 3, pl. 137, 2b; Beazley, *ARV.*, p. 40, no. 70. The podanipter is being lifted by a naked woman. See our pl. I.

2. On a kylix by the Hermaios Painter, in the British Museum, E 34, *BSA*. xiv, 1907–8, p. 294, fig. 19a; Sudhoff, *Aus dem antiken Badewesen*, p. 24, fig. 16; Beazley, *ARV.*, p. 78, no. 6. Naked woman rais-

ing podanipter. According to Sudhoff, she is tipping it up on one foot in order to empty it. The action is obscured in earlier photographs, which were taken off axis.

3. On a kylix signed by Kachrylion, in Florence, *Museo italiano di antichità classica* iii, 1890, pl. II; Pfuhl, *MuZ.*, fig. 351; Beazley, *ARV.*, p. 82, no. 4 ("connected with the Chelis group"). The podanipter stands under Prokrustes' bed.

(b) With two carrying handles and no horizontal lifting handles.

4. On a kylix in the manner of, or perhaps by, the Panaitios Painter, in the possession of Mrs. Emil L. Boas in New York, Klein, *Lieblingsinschriften*², p. 108, fig. 28; Hartwig, *Meisterschalen*, pl. XLIV, 3; Beazley, *ARV.*, p. 218. Naked woman filling lamp. Between her feet a podanipter. The kylix has been almost entirely repainted, and therefore we cannot be certain of details. See pl. 1.

(c) With two horizontal lifting handles and no carrying handles.

4a. On a kylix by Epiktetos in Leningrad, *JdI.* xlv, 1929, p. 173, figs. 15, 16; Beazley, *ARV.*, pp. 48 f., no. 53. Naked woman with $\delta\lambda\iota\sigma\beta\omicron\iota$. Below her a podanipter. It is impossible to be certain whether the handles are of the lifting or of the carrying type but, as they somewhat resemble kylix handles as drawn in side view by Epiktetos, I have interpreted them as carrying handles.

5. On a red-figured kylix found in Rhitsona, *BSA.* xiv, 1907-8, pl. XIII, a, p. 294, no. 255. Naked woman lifting podanipter.

6. On the skyphos from Chiusi with the Return of Odysseus by the Penelope Painter, *FR.* iii, pl. 142; Beazley, *ARV.*, p. 721, no. 2. Only two feet appear on the base of the podanipter, but we must assume a third; cf. below, no. 7. See pl. 1.

B

Lip of bowl not offset

(a) With no handles.

7. On the Phineus cup, *FR.* pl. 41; Rumpf, *Chalkidische Vasen*, no. 20, pls. XL-XLII; Langlotz, *Griechische Vasen in Würzburg*, pl. 27, no. 164. Nymphs bathing. Only two feet of the base are shown, but we must assume a third for stability's sake. See pl. 1.

8. It seems likely that the footbath in the foot-washing scene from the Odyssey on Melian reliefs (Jacobsthal, *Die Melischen Reliefs*, pls. 54, 55, nos. 95 [= M.M.A. acc. no. 25.78.26], 96), belongs here. What we see is a low bowl with what at first glance looks like a base ring. (Note that the diameter of this ring is greater than appears from the photograph, as it probably extended to the right somewhat beyond the break, where the surface has been destroyed). It seems impossible, however, to interpret it as a mere base ring, for it is an appreciable distance above the fillet that bounds the lower edge of the relief. This gives the bowl the appearance of floating in the air. We have no warrant for taking this to be an attempt at perspective. The feet of all the figures in this relief and the feet of the stool on which Odysseus sits rest solidly on the bounding fillet. When we turn for comparison to the other Melian reliefs we find, it is true, that in Jacobsthal's no. 60 (Aktaion's death) none of the figures rest on the lower boundary. But, as Jacobsthal suggests, since the dog stands on a hill that is plastically indicated, the other figures likewise must have been distributed over hilly ground, which was originally shown by painted lines. Nor do Jacobsthal's nos. 46 and 84 afford a true parallel. The goddess' car, drawn by winged griffins, flies, like the winged car on the cup by Douris (Hartwig, *Meisterschalen*, pl. 27; Beazley, *ARV.*, p. 280, no. 14) cited by Jacobsthal, $\mu\epsilon\sigma\sigma\eta\gamma\upsilon\varsigma\ \gamma\alpha\iota\eta\varsigma\ \tau\epsilon\ \kappa\alpha\iota\ \omicron\upsilon\tau\alpha\nu\omicron\upsilon\ \acute{\alpha}\sigma\tau\epsilon\rho\acute{\omicron}\nu\epsilon\tau\omicron\varsigma$.

It seems likely, then, that the footbath on our Melian relief did not originally hang above the ground in its present fashion, but that it stood on a low base. The "base ring" might then be the ring of a tripod, and the footbath would belong to our class I. Whether the feet of the tripod were indicated plastically or by means of paint it is difficult to say. If plastically, we could account for the loss of one by the break at the left, another would never have existed, since it must be imagined behind the foot of Eurykleia, and the third was perhaps knocked off, leaving as a trace of its former presence the slight protuberance in the middle below the base ring. Since this protuberance might easily be merely an original imperfection in the surface, however, it is perhaps safer to assume that the indication of the feet was left to the painter.

(b) With four handles, two for lifting and two for carrying. The shapes of the

handles vary, sometimes considerably, certain forms being favorites with certain painters.

(α) Brygan type.

No. 9 is particularly important, since it shows us that the podanipter, when empty, was carried by one of the long curving handles.

9. On the skyphos in Vienna with the ransom of Hektor, by the Brygos Painter, *FR.* pl. 84; Beazley, *ARV.*, p. 253, no. 129. See pl. I.

10. On a kylix in Berlin, by the Brygos Painter, von Lücken, *Greek Vase Paintings*, pl. 90; Beazley, *ARV.*, p. 248, no. 37. Man vomiting into podanipter.

11. On a rhyton in Leningrad, by the Brygos Painter, *CR.* 1881, title page and p. 60; Beazley, *ARV.*, p. 255, no. 145. Man vomiting into podanipter. Only one carrying handle appears, the absence of the other being due apparently to carelessness, whether of the artist or of the modern draughtsman.

(β) Macronian type.

12. On the kylix no. E 63 in the British Museum by Makron, C. Smith, *Catalogue of Vases* iii, pl. III; Beazley, *ARV.*, p. 307, no. 95. Boxers and older men. Under one handle a pick-axe, under the other a podanipter. We must note that this kylix has been cleaned and its fragments rearranged since the publication of the drawing in the catalogue, hence we cannot be certain of all details.

13. On an aryballos with a clinic scene, by the Clinic Painter, in the Louvre, *MonPiot.* xiii, 1906, pls. XIII, XIV; Beazley, *ARV.*, p. 538, no. 1. The podanipter serves as a surgeon's basin. See pl. I.

(γ) "Panaitian" type.

14. On the kylix in the Louvre with the deeds of Theseus, by the Panaitios Painter, Pottier, *Vases antiques du Louvre* iii, pl. 103; *FR.* pl. 141; Beazley, *ARV.*, p. 214, no. 10. Theseus and Skiron. See pl. I.

(c) With two carrying handles, but no lifting handles. 15 and 16 are related to the "Panaitian" type, no. 14.

15. On a kylix by Onesimos in Brussels, *CVA.* Brussels, Cinquantenaire, fasc. 1, III Ic, pl. 1, 3b; Beazley, *ARV.*, p. 22, no. 60. Woman about to bathe.

16. On a kylix by Onesimos in the Louvre, no. G 291, Pottier, *Vases antiques du Louvre* iii, pl. 134; Sudhoff, *Aus dem antiken Badewesen* i, p. 17, fig. 11; Beazley, *ARV.*, p. 222, no. 51. Athlete holding something above a podanipter; against the wall leans his stick; on the wall hang an aryballos, a strigil, and a pair of sandals. See pl. I.

17. On a kylix in Florence probably by the Dokimasia Painter, *Museo italiano* iii, pl. 3; Beazley, *ARV.*, p. 272. Theseus and Skiron.

18. On a pelike in Florence by the Vienna Painter, *Museo italiano* iii, pl. 4; Beazley, *ARV.*, p. 28, no. 2. Theseus and Skiron.

(d) With two horizontal lifting handles and no carrying handles.

19. On a kylix in Munich by the Pistoxenos Painter, Gerhard, *AV.* iii, pls. 232-3; Beazley, *ARV.*, p. 575, no. 8. Theseus and Skiron. Since the kylix has been restored, one cannot be certain of details.

20. On a kylix by the Euaion painter in the Historisches Museum in Frankfurt, Schaal, *Griechische Vasen aus Frankfurter Sammlungen*, pl. 36; Beazley, *ARV.*, p. 530, no. 81. Theseus and Skiron. See pl. I.

21. On a stamnos in Munich by the Hektor Painter, *FR.* pl. 19; Beazley, *ARV.*, p. 684, no. 5. Nike watering a sacrificial bull. In the background a tripod decked with branches marks the locality as a sanctuary.

A group of four closely related Etruscan examples follows, all belonging to the late archaic period, a period which in Etruria may not have ended till ca. 450 B.C. (see G. M. A. Richter, *Handbook of the Etruscan Collection of the Metropolitan Museum*, pp. 27 f.).

22. On a late archaic Etruscan sarcophagus from Sperandio near Perugia, in the Museo archeologico, Perugia, *MonInst.* iv, pl. xxxii. Banquet scene.

23. On a late archaic Etruscan cippus from Chiusi in the Louvre, Giglioli, *L'Arte etrusca*, pl. cxxxvii, 1; Paribeni, *StEtr.* xii, 1938, pl. xxvi, 3, p. 107, no. 109. Apparently similar to the preceding example, though the bad state of preservation makes it impossible to be certain of the form of the base.

24. On a late archaic Etruscan cippus from Chiusi in Berlin, Giglioli, *L'Arte etrusca*, pl. cxlvi, 5; Paribeni, *StEtr.* xii, 1938, pp. 95 f., no. 77. See pl. II.

25. On a late archaic Etruscan cippus in Chiusi, Paribeni, *StEtr.* xii, 1938, pl. xxvi, 1, p. 108, no. 113.

On all four of these Etruscan examples, the top of a jar appears above the rim of the podanipter. Paribeni (*op. cit.*, pp. 96, 108) suggested, accordingly, that the podanipter in these scenes is used as a kind of "champagne bucket" or psykter. Whether this is so, or whether it is a case of simple stacking might perhaps be settled by examination of the late archaic Etruscan banquet scene in the Tomba del Colle Casuccini, Chiusi, shown in drawings in *MonInst.* v, pl. xxxiv, and Montelius, *La Civilisation primitive en Italie* ii, pl. 236, 2, and in a photograph in Giglioli, *L'Arte etrusca*, pl. ccii, 1. The photograph in Giglioli's book is unfortunately too faint to be used as a control of the drawings. The latter show a bowl similar to the four preceding ones, but with a much higher base. It has no handles, but a projection (circular in the *Monumenti* drawing, of indefinite form in the Montelius one) might be a bobbin from which swung the kind of movable handle that appears in the four preceding examples. No such projection appears on the left in Montelius and the corresponding part is cut off in the *Monumenti* by the frame of the reproduction. It is possible that the omission of the handles and of one bobbin in Montelius is due to the modern draughtsmen who may have been misled by a badly preserved surface. The three very angular lions' legs supporting the ring on which the bowl rests are so high that they bring the top of the bowl up to knee-level. It is therefore too high for a footbath. In this bowl are set, according to the drawings, two small deep bowls, one inside the other. From the smaller one a servant seems to be lifting an oinochoe. If the drawings are correct, the small bowls and the oinochoe would seem merely to have been conveniently stacked inside the high-footed bowl. One wonders, however, whether the two small bowls are not really the top of a jar which was misunderstood by the modern draughtsmen. The high-footed bowl would then be a wine-cooler, and would furnish an argument for Paribeni's interpretation of the podanipter in nos. 22-25. See also no. 84, below. The λεκανοψυκτήρ which appears in the Attic Chalkotheke inventories of 369-8 and 368-7 B.C. (*IG.* ii-iii², 1424a, 160 and 1425, 348) cannot be cited to elucidate what would seem to be a peculiarly Etruscan use or adaptation of the podanipter.

CLASS II

Base formed by three feet attached directly to bowl without intervening ring. On no. 28, four feet appear, a singularity which is probably the result of the vase-painter's carelessness.

It is difficult to subdivide this class. The types of it shown on Attic vases are as numerous as the examples (nos. 26-28). In South Italy, on the other hand, with more than four times as many examples, we find only one basic type, which appears now with handles (nos. 29-33), now without (nos. 35-38b and, perhaps, 34), and a variation of it which shows a peculiar treatment of the legs (no. 39). The evidence, moreover, for this variation and for the handleless examples of the main type is

furnished by old drawings and rather unclear photographs. It therefore seems better not to subdivide this class, but to give instead rather full descriptions of the individual examples.

26. On a fragment of a volute krater in the Louvre, G 194, in the manner of the Syriskos Painter, *CVA*. Louvre, fasc. 2, III Ic, pl. 22, 4; Beazley, *ARV.*, p. 199, 2. Theseus and Skiron. The joints of the lion-footed legs are indicated. The legs are attached at the top of the bowl. Over each of the two extant attachments hangs a movable handle; hence, there were perhaps three handles in all.

27. On an amphora from the Gallatin Collection in the Metropolitan Museum, by the Gallatin Painter, *CVA*. U.S.A. 8, pl. 51, 1a; Beazley, *ARV.*, p. 163, no. 3. Legs curve slightly. Manner of attachment not clear. Only one handle appears, but two are obviously intended, one being directly behind the other in the spectator's line of vision. See our fig. 9, p. 38.

28. On a fragmentary skyphos in Athens which was attributed by Miss Talcott to the Dinos Painter, *Hesperia* iv, 1935, p. 479, fig. 3. Clinic scene? Four legs appear. They are very short and are attached to the bottom of the bowl. The handles are of the column-krater type. See pl. II.

29. On a South Italian amphora in Boston with the death of Thersites, *AJA.* xii, 1908, pl. xix. The podanipter, as well as a tripod and several vases, has been knocked down in the violent action.

30. On the Patroklos vase in Naples, *FR.* pl. 89. The podanipter stands on a two-stepped base which brings its rim up to above knee level. A woman is filling it from a hydria. See pl. II.

31. On a South Italian vase in Leningrad with an altar scene, *MonInst.* vi-vii, 1857-1863, pl. LXXI, 2; Stephani, *Der Vasen-Sammlung der kaiserlichen Ermitage*, no. 452. (Cf. the use of a "footbath" to water a sacrificial bull, above, no. 21). The podanipter has been knocked over by the youth who is hurrying to the scene.

32. On the Medea vase in Munich, *FR.* pl. 90. The podanipter has been knocked over in the general excitement.

Nos. 29-32 resemble each other. All have rather high, strongly curving legs, ending in lion's feet. On nos. 30 and 31 the joints of the legs are clearly indicated. All have bow-shaped handles attached at the rim. In nos. 29, 30 and 31 these handles have a projecting decoration in the middle and are flanked by what look like roughly drawn flower-shaped finials set on the rim. But a prolongation extending from the attachment of the handle to the base of the finial appears only on no. 29. One might think that the finials of nos. 30 and 31 represented mere vestiges, such as we find on the terracotta bowls to be mentioned below. But since the bowls depicted are presumably of bronze, it is more likely that the absence of the prolonged handle attachments is due to the painter alone. On no. 32 the handles seem to be decorated with three projecting ornaments and to lack flanking finials.

33. A particularly elaborate example of the type shown in nos. 29-32 appears in an adaptation of Sosos' Drinking Doves from a house of the First Style in Pompeii, Niccolini, *Casa e Monumenti* iv, 2, *Nuovi Scavi*, pl. v; Spinazzola, *Le Arti decorative in Pompei*, pl. 183; Herrmann, *Denkmäler der Malerei*, p. 12, note 1. The handles, including the extensions, are faceted. In the center is a girdle of knobs, which are smaller and more numerous than in our bronze. Somewhat similar girdles occur at the attachments of the handles on the outside of the vase, while inside, at the rim, rise small palmettes. The flower finials of the extensions have a double row of leaves below the corolla. The rim is decorated with a leaf pattern surmounted by beading. The naturalistic lion's legs rest on double disks.

34. On a vase in the Naples Museum, Santangelo no. 404, Sudhoff, *Aus dem antiken Badewesen*, p. 48, fig. 37. Woman bathing. Sudhoff's photograph is not very clear. So far as I can tell, the legs are attached directly to the bowl. Faint traces of what may be two small bow-shaped handles, or may on the other hand be merely flaws in the reproduction, appear above the rim of the bowl.

35. On a South Italian pelike in the Museo Biscari, Catania, Passeri, *Picturae Etruscorum in vasculis* i, pl. xxxv; Libertini, *Il Museo Biscari*, p. 185, no. 770, pl. xc. Subject of scene uncertain. Unfortunately, the podanipter is far from clear in Libertini's plate and the drawing published by Passeri is

unreliable. The latter shows a vase in general resembling our no. 29-32, particularly in the legs, but without handles. Libertini refers to it apparently as a *vaso di fiori*—whether with reason or not we cannot tell.

36. On a South Italian vase, formerly in the second Hamilton Collection, Tischbein, *Recueil* ii, pl. xv (Paris edition). Woman bathing. Same general type. No handles.

37. In a painting from Herculaneum showing athletes, *Museo Borbonico* x, pl. xxxix; Roux and Barré, *Herculaneum et Pompéi* iii, pl. 148 (deuxième série); Helbig, *Wandgemälde Campaniens*, no. 1510. The podanipter, which stands on a low, solid base, is being filled by a servant. Same general type as the preceding examples, but higher. No handles.

38. In a painting from Pompeii showing a fountain in the form of a sphinx, Roux and Barré, *Herculaneum et Pompéi* iv, pl. 21 (troisième série); Helbig, *Wandgemälde Campaniens*, no. 1777. Same type, but very low. No handles. The bowl is said to be marble-colored, like the sphinx and basis in front of which it stands.

38a, b. On a Roman wall painting of the Third Pompeian style, discovered on the Esquiline in the so-called auditorium of Maecenas. *BullComm.* ii, 1874, pl. xvii, 3. Two low bowls, resembling in shape no. 38, are placed on the ground at either end of a formal garden, just outside the pergolas that bound its shorter sides.

39. On a South Italian vase from the second Hamilton collection, later in the collection of Lord Leverhulme, Tischbein, *Recueil* iv, pl. 54 (Paris edition); Tillyard, *Hope Vases*, no. 252. Woman bathing. Two handles decorated with protuberance in center and flanked by vestigial finials of same form set on rim. The legs look as if they were composed of two parts, a perpendicular lower member ending in a lion's foot and a convexly curving upper member, the upper end of which is attached to the bowl. At the juncture of the two parts, the three legs are joined by horizontal struts.

This drawing may be the original of the podanipter on the "Olbia tiara," Collignon, *MonPiot* vi, 1899, pl. iii, p. 43 (where the resemblance is noted). In fact, the type which I have called class II would seem to be a particular favorite of forgers, for it appears in two forgeries of Etruscan reliefs published by Paribeni, *StEtr.* xii, 1938, p. 138, nos. 1, 2, pl. xxxv, 1, 3.

The footstool called "type b" by Miss Richter in *Ancient Furniture*, p. 73, is sometimes mistaken for a basin or podanipter, e.g. by Ducati, *Storia della ceramica greca*, p. 336, fig. 252; by Bovio, *CVA*. Palermo, fasc. 1, III Ic, pl. 13, 2, p. 8, and by Sudhoff, *Aus dem antiken Badewesen* ii, p. 38, fig. 28 (correctly interpreted by Pellegrini, *Catalogo dei vasi greci dipinti delle necropoli felsinee*, pp. 182 f., fig. 112).

Belonging either to Class I or Class II.

40. On a middle Corinthian jar in the Bibliothèque Nationale, *CVA*. Bibliothèque Nationale, fasc. 1, pl. 17, 4; Payne, *Necrocorinthia*, p. 306, no. 878. A banquet guest is having his feet washed by a servant. The painting is so roughly done that it is impossible to tell which class the footbath belongs to, but it looks, perhaps, more like Class II. One handle appears.

41. On a red-figured kantharos in Boston (no. 95.61) signed by Nikosthenes, Vorberg, *Glossarium eroticum*, p. 408; Licht, *Sittengeschichte Griechenlands*, Ergänzungsband, p. 199; Beazley, *ARV.*, p. 104. Dining room scene. Dr. Caskey has kindly sent me a drawing and the following description: "Two handles projecting above rim, as shown in drawing. No evidence of more handles. . . . The oblique line running across the upper part of the rim is in thinned paint. Three feet, one only partially preserved. No lion's feet. Method of attachment of feet obscure, because of the break indicated in drawing."

42. On a kylix in Harrow with the deeds of Theseus which "resembles the work of the Phiale painter," *SBA*. 1907, pl. 1; Beazley, *ARV.*, p. 660. Wide-mouthed low bowl with two handles which seem to be of the column-krater type. Three feet appear beneath the bowl. The method of attachment is concealed by foreshortening, though above the foot at the left there is a trace of what may be a ring. Theseus and Skiron are represented both on the outside and the inside of the kylix. I have described the footbath of the scene on the inside. That on the outside seems to be of the same type, but it is impossible to be certain of this, owing to a very disturbing highlight in the photograph.

Here we may pause to consider extant footbaths and other bowls belonging to class II.

There is a smallish bowl (diameter 32 cm.) in the Louvre (De Ridder, *Catalogue* ii, no. 2600, pl. 93) with winged female busts at the attachments of the feet. There are no handles, but little figures of lions decorate the rim.

The large bowl (diameter 58.4 cm.) in the Metropolitan Museum of Art which was found in the tomb with the Etruscan chariot (acc. no. G.R. 395; Richter, *Bronze Catalogue*, no. 624) is an Italic imitation of this type, belonging to the middle or third quarter of the sixth century. It has two arched vertical handles, decorated each with three groups of raised bands and attached just below the rim. The attachments of the feet are formed by openwork surmounted by winged protomai.

A bowl published by Montelius, *La Civilisation primitive en Italie* ii, 1, pl. 241, no. 15 (diam. about 52 cm.) with legs ending in hoofs would seem also to be an Italic imitation.

Much later than the above, probably Hellenistic or Roman, is a pretty fluted bowl in Naples (*Museo Borbomico* v, pl. xiv; Tarbell, *Catalogue of Bronzes, etc.*, p. 133, no. 206, pl. XLV; diameter 21.10 cm.), with lion's feet topped by double volutes and palmettes and resting on channelled disks.

The feet of bowls of class II have been found at Olympia (Furtwängler, *Olympia* iv, pl. LI, 857, 858, text, p. 137), in the Idaean cave in Crete (*Museo italiano di antichità classica* ii, Atlas, pl. XII, no. 17, text, col. 744), on the Athenian Akropolis (de Ridder, *Bronzes trouvés sur l'Acropole d'Athènes*, nos. 445-447, figs. 112-114; no. 455, fig. 119), at Dodona (Carapanos, *Dodone*, pl. XLI, no. 3), at Lindos (Blinkenberg, *Lindos* i, col. 746, nos. 3215-3217, pl. 151), and in Capua (*AdI.* 1880, Tav. d'agg. v, 2, pp. 232 f.).

We come closest to the pictures on the vases in a bronze footbath from Pompeii (NS. 1908, p. 288, fig. 11; diam. 44 cm.), which might almost be the model for the one on the Patroklos vase. We find the same strongly curving legs with the indication of the joints and similar handles, decorated with a central protuberance, which are attached at the rim and rise in a curve above it. The only differences are the apparent absence of the flanking flower finials and, at the attachments of the legs, the presence of sirens (as in the archaic examples just mentioned). The rim is decorated with a tongue pattern which seems to be surmounted by beading. Another example, in the Naples Museum, no. 73515 (Pernice, *Die hellenistische Kunst in Pompeji* iv, p. 12, fig. 14; Tarbell, *op. cit.*, no. 193, pl. XCII), has similar legs, but the feet rest on circular bases and there is only a simple scroll ornament at the attachments. The swinging handles are set slightly below the rim. At the bottom of the bowl is an unfunctional base ring. Another example in Naples, no. 73516 (Tarbell, *op. cit.*, no. 194, pl. XCII), has shorter, but also strongly curving, legs set lower down on the bowl, round bases under the feet and similar swinging handles. The rim is offset.

A marble adaptation with protomai of sphinxes at the attachments of the legs, and egg and dart pattern on the rim, and no handles was found in Pompeii (Niccolini, *Casa e monumenti* iv, 2, supplemento pl. XLIX; Spinazzola, *Le Arti decorative in Pompei e nel Museo Nazionale di Napoli*, pl. 42).

We now return to our list of footbaths represented in vase paintings and elsewhere and consider those in class III, i.e., those which have for a base a single, central support higher and more elaborate than a mere base ring. This base varies in relative height and breadth. Various forms of handles appear with it, and on them we shall base our subdivisions of this class.

CLASS III

Base consists of a single central support, higher and more elaborate than a mere base ring.

A

With handles of the column krater type (cf. above, nos. 28, 42 and perhaps nos. 12 and 13).

43. On a fragment of a kylix by the Euergides Painter in Boston, Caskey and Beazley, *Attic Vase Paintings in the Museum of Fine Arts, Boston* i, pl. III, no. 12, p. 9; Beazley, *ARV.*, p. 64, no. 92. A

youth is leaning over a louterion on a columnar base. With his right hand he tests the temperature of the water, while with his left he draws more water in a small pitcher from a podanipter that rests on the floor. The lowness of its base might suggest a mere ring, but the slant of the profile favors rather a base of the same general kind as nos. 44 ff. The painter has neglected indicating the boundary between bowl and base.

44. On a kylix in London by the Kodros Painter, Pfuhl, *MuZ.*, fig. 573 (interior); Beazley, *ARV.*, p. 739, no. 4. Theseus and Skiron. The scenes are repeated on the exterior of the kylix with some variations in detail. Smith, in his description in the Catalogue, does not mention the footbath as one of the variations, so presumably the one on the exterior is of the same shape as that on the interior. See pl. II.

45. On a South Italian skyphos of perhaps the early fourth century in Goluchów, *MonInst.* iii, pl. 47; CVA. Poland, Goluchów, pl. 47, no. 5a; Beazley, *Vases in Poland*, pp. 74 f., 81. Theseus and Skiron.

46. On a South Italian vase from the Basilicata, formerly in the Pourtales-Gorgier Collection, Lenormant and de Witte, *Élite céramographique* iv, pl. xv. Woman bathing. The bowl is placed on top of a column, to be used as a louterion, but is smaller than the average louterion.

Extant shallow bowls of this type with column-krater handles have been treated by Pernice.⁹⁹ They occur both in terracotta¹⁰⁰ and in bronze, the terracotta ones being South Italian. Handles of such bronze bowls were found in Pompeii, and it is possible that the bowl in the Berlin Museum shown by Pernice in his figure 17 also comes from there. A bronze bowl (diam. 37 cm.) in the Museo Gregoriano¹⁰¹ comes from Vulci, Bomarzo, or Orte; one in Naples (diam. 56 cm.) from Cumae.¹⁰² Handles were also found in Roccanova in the Basilicata in a grave of the fourth to third century B.C. Some years after Pernice wrote, a bronze bowl of this type (diam. 41 cm.) was discovered at Duvanlii in southern Bulgaria in a grave of the late fifth or early fourth century.¹⁰³ Another bronze (or copper) bowl of this type (diam. without handles 14.5 cm.) was found at Caulonia in the cemetery of Costa-Garretto and may belong to the fifth century, as do other objects from the same cemetery.¹⁰⁴

B

Bow handles attached at the rim, with ends prolonged and bent upward, or with vestigial finials of such prolongations.

47. On a skyphos found in a grave of the early fourth century at Spina, Aurigemma, *Il. R. Museo di Spina*, p. 138, pl. LXXV. Theseus and Skiron. The handles seem to be structurally of the same type as those of our bronze footbath. The prolongation is bent round and rises up under the rim. I can find no trace, however, of finials on the rim. It is possible that this bowl should be placed in our class IV, for in Aurigemma's plate it seems to have merely a base ring. The reproduction, however, is so small that we cannot be certain, and in general appearance the bowl is so like others of class III of about this date that I prefer to place it tentatively here.

48. On a South Italian amphora in Berlin, Gerhard, *Apulische Vasenbilder*, pl. I; Furtwängler, *Beschreibung der Vasensammlung im Antiquarium* ii, pp. 916 ff., no. 3264. Dionysos, seated on a couch, holds out a kantharos to be filled by a youthful Pan. Below the couch a podanipter. In attendance, satyrs and maenads. The handles of the podanipter are bow-shaped and attached at the rim, and the ends of one of them curve upward in a way that suggests that the artist intended to represent handles

⁹⁹ *Die hellenistische Kunst in Pompeji* iv, p. 12 f.

¹⁰⁰ E.g., Pernice, *op. cit.*, p. 13, fig. 16 and no. 06.1021.242 in the Metropolitan Museum of Art (diam. 45.7 cm.).

¹⁰¹ *Mus. Greg.* (1842 ed.) i, pl. LV, 3, p. 11. It is there stated that the handles, though ancient, do not belong to the bowl, but Pernice thinks it very improbable that they do not belong.

¹⁰² *Catalogue de la vente J. Ferroni*, Rome, April 14-22, 1909, no. 641, illustrated, p. 18.

¹⁰³ Filow, Welkow, and Mikow, *Die Grabhügelnekropole bei Duvanlii in Südbulgarien*, pp. 70 f., no. 10, fig. 90, pp. 220, 230.

¹⁰⁴ Orsi, *MonAnt.* xxix, 1923, col. 488, fig. 38.

like nos. 30 ff. of our list A. The drawing (whether of the original or of the reproduction) is so roughly done, however, that one cannot be certain what is meant.

49. On a South Italian calyx krater, Millingen, *Peintures de vases grecs*, pl. XLV. Woman carrying a chest and footed bowl to a seated youth. The bowl has two arched handles with a protuberance in the middle and at the rim on either side of the attachment. Those on the sides are evidently vestigial finials. Cf nos. 30 and 31 above.

50. On a South Italian oinochoe in the Museo Provinciale, Lecce, *CVA. Lecce, Museo Provinciale*, fasc. II, IV Dr, pl. 47, no. 4. Eros, in his haste to carry a basket to a seated woman, has knocked over a bowl of the type of no. 49. Cf. below, no. 54. See pl. II.

51, 52. On a South Italian vase, Albizzati, *Saggio di esegesi sperimentale sulle pitture funerarie dei vasi italo-greci, Dissertazioni della Pontifica Accademia romana di archeologia*, Series II, xiv, 1920, p. 154, fig. 4 (from Millin, *Peintures de vases ii*, pl. xxxiii). Offerings at a tomb. On either side of the foundation of the aediculum, below the feet of the figure bringing the offerings, a bowl similar to nos. 49 and 50 is lying on its side.

53. On a South Italian volute krater in the Vatican, Albizzati, *op. cit.*, p. 150, fig. 1. Offerings at a tomb. In the field, lying on its side, a bowl of the type of nos. 49-52.

According to Albizzati, *op. cit.*, scenes such as those described under nos. 49 and 50 show offerings being brought to the dead, as well as scenes which show the actual tomb. The type of bowl, then, of which nos. 49-53 are examples must have been frequently or regularly offered to the dead in South Italy. There is nothing in the scenes to show that it is a footbath or wash bowl, but, on the other hand, since bathing utensils are frequently used in grave rites or as sepulchral monuments, it may well have been. See Albizzati, *op. cit.*, pp. 160 ff.; Richter and Milne, *Shapes and Names of Athenian Vases*, p. 22; H. Kenner, *JOAI*. xxix, 1935, pp. 109 ff.

54. On a South Italian vase with a representation of Andromeda and Perseus in the Museum of Bari, Engelmann, *Archäologische Studien zu den Tragikern*, p. 6, fig. 1, and from this Séchan, *Études sur la tragédie grecque*, p. 262, fig. 82. The bowl, of the same type as nos. 49-53, is lying on its side. Perhaps it has been knocked over by Perseus as he hastens on the scene. Cf. no. 50. However, since nos. 51-53 are shown in a somewhat similar position without its being justified by anything in the action, we may have here merely a bit of vase-painter's routine. Here, too, the bowl is a gift to the dead. On the interpolation of funerary motives in mythical scenes on South Italian vases, see Albizzati, *op. cit.*, pp. 206 ff. In the case of Andromeda these motives are more appropriate than in some others. Even outside the South Italian sphere, in Attic art, we find gifts placed beside the exposed maiden. See Zahn, *Die Antike* i, 1925, p. 81, pl. 5.

55. On a South Italian bell krater in Moscow, *Bull. arch. ital.* 1862, pl. VII; *JdI*. xlv, 1929, p. 89, fig. 6. Iphigeneia in Tauris. Below the temple a bowl similar to nos. 49-54 and a hydria.

Actual specimens of bowls of class III with vestigial finials like those of nos. 49-55 occur in South Italian pottery and are discussed by Pernice.¹⁰⁵ Examples in the Metropolitan Museum show, in addition to the flower finials, a third flower ornamenting the center of the handle.¹⁰⁶

C

Small bow-shaped handles with upturned ends, placed some distance below the rim.

56. On an engraved mirror of the fourth century B.C., Pfuhl, *MuZ.*, fig. 625. Naked woman washing hair. See pl. II.

D

Simple bow-shaped or slightly square handles.

¹⁰⁵ *Op. cit.* iv, p. 10, fig. 10.

¹⁰⁶ G.R. 629 (diam. 30 cm.); G.R. 630 (diam. 36.9 cm.).

57. On a kylix in Berlin, no. 2272, with the name Leagros (misspelled), Sudhoff, *Aus dem antiken Badewesen*, p. 20, fig. 14; Beazley, *ARV.*, p. 931, no. 47. Naked woman putting on her sandals, evidently after bathing. See pl. II.

57a. On a lost vase of the second Hamilton Collection, Tischbein, *Recueil* i, pl. II (Paris edition). Woman having her feet washed by Eros. The footbath looks like a late and elaborate version of no. 57, with the handles, however, set below the offset rim. Reinach, *Répertoire des vases peints*, II, p. 279, calls this vase "suspect." His suspicions of Tischbein's drawings, however, have not always turned out to be justified. See Tillyard, *The Hope Vases*, *passim*.

58. On the kylix with the deeds of Theseus by Aison in Madrid, *AD.* II, pl. 1; Leroux, *Vases grecs et italo-grecs du Musée archéologique de Madrid*, pl. xxviii; Beazley, *ARV.*, p. 800, no. 20. It looks as if a foot like those of our class III, rather than a simple base ring, were intended by the artist, though the foreshortening makes it impossible to be certain. The handles have the form of a flattened or slightly squared bow with thickened ends, and are attached at the rim.

E

With handles in the form of snakes.

59. On a sarcophagus lid of the end of the second century A.D. in the Walters Art Gallery in Baltimore, Lehmann-Hartleben and Olsen, *Dionysiac Sarcophagi in Baltimore*, fig. 7 and p. 13. Birth of Dionysos. The bowl stands on the floor beside Semele's bed.

F

With no handles.

60. On a South Italian bell krater in the Museo Provinciale, Lecce, *CVA. Lecce, Museo Provinciale*, fasc. 2, IV Dr, pl. 12, 8. Draped woman washing hair. The bowl stands on a high rectangular block, but is smaller than a regular louterion. See pl. II.

61. On a South Italian pelike once in the Blacas Collection, Lenormant and de Witte, *Élite céramographique* II, pl. XLIX. Woman bathing.

62. In a painting from the House of Castor and Pollux in Pompeii, Niccolini, *Casa e Monumenti* I, pl. VIII. Narcissus gazes at himself in a bowl of water which is being filled by Cupid.

63. On a sarcophagus of the second century A.D. in Constantinople, Robert, *Die antiken Sarkophag-Reliefs* III, 2, pl. XLIV, no. 144; Mendel, *Catalogue* I, no. 21. Phaedra.

64. On a sarcophagus in the Walters Art Gallery in Baltimore, of the third quarter of the second century A.D., Lehmann-Hartleben and Olsen, *Dionysiac Sarcophagi in Baltimore*, fig. 2. Preparations for the bath of the infant Dionysos. No handles.

CLASS IV

With base ring.

A

With handles.

65. Perhaps in an Etruscan tomb-painting, *Museo Gregoriano* II (1842 ed.), pl. xcvi. Banquet scene with sideboard. On top of the sideboard, a krater, two jars, two oinochoai and two small vases. On the shelf below this, nine kylikes are stacked in piles of three. On the floor beneath the sideboard, two bowls, one of medium size without handles, and one rather large with handles. Both bowls have base rings, and in each of them a pitcher is placed. It seems possible that the smaller of these two bowls is a wash-hand basin and the larger one a footbath, but we can by no means be certain of this. Possibly the larger of the two is merely a drinking cup like either fig. 172 or fig. 157 in Richter and Milne, *Shapes and Names of Athenian Vases*. The handles, it is true, are placed too high, but this is the case also in some of the kylikes on the shelf above. For out-size drinking cups in Etruscan tomb paintings, see Poulsen, *Etruscan Tomb Paintings*, fig. 36 (Tomba dell' Orco) and Ducati, *L'Italia antica*, p. 218, fig. 155 (Tomba dei vasi dipinti).

66. In the painting of the wounded Adonis from the Casa d'Adonide Ferito in Pompeii, Herrmann, *Denkmäler der Malerei*, pl. 52; Pfuhl, *MuZ.*, fig. 669.

67. In a painting from Pompeii showing Narcissus gazing at himself in a bowl of water, *Museo*

Borbonico x, pl. xxxv; Helbig, *Wandgemälde Campaniens*, no. 1357. The drawing in the *Museo Borbonico* is incorrect, see Helbig.

B

Without handles.

68. On a marble relief from Thessaly, of the second half of the fifth century B.C., showing the foot-washing scene from the *Odyssey*, *AM.* xxv, 1900, pl. xiv; Svoronos, *Das Athener Nationalmuseum* ii, pl. cxxxiv.

69. On an Etruscan urn showing Philoktetes, Brunn, *I Rilievi delle urne etrusche* i, pl. 72, 7; *Mon.-Ant.* xxviii, 1922, Cols. 551-2, fig. 17.

70. On a Roman gem in Berlin, Furtwängler, *Geschnittene Steine*, no. 2483, pl. 23, with the foot-washing scene from the *Odyssey*, we may have a bowl with a thick base ring, but the small scale and carelessness of the work make it impossible to be certain, from the reproduction at least. It might be, rather, a bowl with no base ring, but with a wide offset lip.

71. On a lost gem with the same subject shown in Overbeck, *Die Bildwerke zum Thebischen und Troischen Heldenkreis*, pl. xxxiii, 4 (wrongly called a relief; see Conze, *AdI.* 1872, p. 203, and Müller, *Die antiken Odyssee-Illustrationen*, p. 87, note 1).

72. On a Campana relief with the same subject, von Rohden, *Die antiken Terrakotten* iv, pl. xxviii. Deep bowl with what seems to be a thin base ring. It is possible, however, that this belongs to Class V.

73. In a Pompeian painting of the toilet of Hermaphroditos, *AZ.* 1843, pl. 5; *DS.* iii, 1, p. 138, fig. 3822. The latter drawing would assign it to Class III, the former to Class IV.

74. On a Roman sarcophagus in the Torlonia Collection, showing the bathing of a child, Raoul-Rochette, *Monumens inédits*, pl. lxxvii, no. 1; *I Monumenti del Museo Torlonia*, pl. civ, no. 414.

75. On the same sarcophagus, on the floor in front of a sickbed, Raoul-Rochette, *loc. cit.*; *I Monumenti del Museo Torlonia*, *loc. cit.*

76. On a Roman wall painting said to be from the "Baths of Titus," i.e., the Golden House of Nero, Ponce, *Description des Bains de Titus*, pl. 16. Birth of a child (Dionysos?).

CLASS V

No base.

77. On a hydria by the Leningrad Painter in Goluchów, with a scene of a ritual bath, *CVA.* Goluchów, pl. 32, 3b; Beazley, *ARV.*, p. 376, no. 62. According to Bulas (text of *CVA.* Goluchów, p. 23) the bowl has two handles, but I can see no trace of them on the plate, except possibly a slightly curved upright line to the left of Theseus' right foot.

78. On a kylix in the British Museum by the Kodros Painter, Sudhoff, *Aus dem antiken Badewesen*, p. 21, fig. 15; p. 52, fig. 41; E. N. Gardiner, *Athletics of the Ancient World*, fig. 60a; Beazley, *ARV.*, p. 740, no. 14. Scene in a bath house. No handles.

79. On a pelike of the Kerch style with the footwashing scene from the *Odyssey*, *Clara Rhodos*, vi-vii, pp. 458 ff., figs. 13-15. The reproductions are not clear, so that one cannot be quite certain of the classification of this bowl, but I see no trace in them of a base ring or foot and the lines below the bowl would seem to represent a textile of some sort (a towel?) rather than a tripod or other form of stand. No handles.

80. On a Hellenistic terracotta from Cyprus in the Academy of Medicine in Turin, Sudhoff, *Aus dem antiken Badewesen*, pp. 4-5, figs. 1, 2. Naked woman washing her feet. No handles.

81. On a terracotta relief, showing a surgical operation, from a Roman tomb of the second century A.D., Calza, *La Necropoli del Porto di Roma nell'Isola Sacra*, p. 251, fig. 149. No handles.

82. On a sarcophagus in the Lateran of the first third of the third century A.D., Robert, *Die antiken Sarkophag-Reliefs* iii, 1, pl. v, no. 21. Cupid washing the blood from the foot of the wounded Adonis. No handles.

83. On a Roman sarcophagus in the Vatican, showing the bathing of a child, Raoul-Rochette, *Monumens inédits*, pl. lxxvii, 2. No handles.

CLASS VI

Miscellaneous.

84. On an archaic Etruscan urn from Chiusi in the Museo archeologico, Florence, Giglioli, *L'Arte etrusca*, pl. CXXXVI, 1; Paribeni, *StEtr.* xii, 1938, p. 124, no. 175. Banquet scene. Base in the form of a truncated cone surmounted by a strongly projecting, overhanging moulding. No handles. Inside the bowl a high vessel is placed. Here, too, as in nos. 22-25, the question arises whether this is a case of stacking or of the use of the podanipter as a cooler.

85. On a sarcophagus in Florence of the first century A.D., Robert, *Die antiken Sarkophag-Reliefs* ii, pl. LI, no. 139b. Footwashing scene from the Odyssey. High, narrow tub. I am not certain that we can trust the drawing. Perhaps a mere bowl without base ring has been either misunderstood or imperfectly indicated.

Sudhoff (*Aus dem antiken Badewesen*, pp. 8, 18 ff.) tentatively identified the deep tub on a kylix in Munich (see his figure 12) as a footbath, apparently because of its similarity to the foottub on this sarcophagus. The argument, however, is not convincing.

86. On a silver skyphos from the Casa del Menandro, Pompeii, Maiuri, *La Casa del Menandro*, p. 339, fig. 131, pl. XXXIX. Bathing of the infant Dionysos. Miniature, flat-bottomed bathtub, the flat horizontal rim of which is widened at head and foot, the foot being distinguished by the angular shape there given the widened rim.

In Christian art in representations of the footwashing scene, John 13.5 ff., we find a deep footbath with a high, conical foot (e.g. in the Codex Rossanensis, Morey, *Early Christian Art*, fig. 120; see also Sudhoff, *Aus dem antiken Badewesen*, pp. 8 ff., fig. 5). A similar vessel serves as a child's tub in scenes of the birth of Christ (M. Schmid, *Die Darstellung der Geburt Christi in der bildenden Kunst*, pp. 14 ff.). Noack (*Die Geburt Christi in der bildenden Kunst*, p. 23) argued that such representations of the birth of Christ were adapted from Roman representations of the birth of Dionysos, and that the shape of the Christ Child's tub is a direct copy of that of the child Dionysos as it appears e.g. on the sarcophagus reliefs nos. 87, 88 below. However, though drawings of these sarcophagi make the bowl appear more or less chalice-shaped, the published photographs (especially that of no. 87) seem to show a deep bowl of our Class III. One would have to examine the original to make sure of the shape of the foot of these bowls. On a sarcophagus in Mantua with a representation of the wounded Adonis (no. 89 below), on the other hand, the chalice shape is clearly shown by the photograph. It seems also to appear in the scene of the birth of Dionysos on a printed textile from Antinoë, dated by Lehmann-Hartleben and Olsen in the fourth century A.D. (Guimet, *Les Portraits d'Antinoë au Musée Guimet* pl. XIII; Lehmann-Hartleben and Olsen, *Dionysiac Sarcophagi in Baltimore*, p. 53 and fig. 37), but the foreshortening makes it difficult to be certain of this. The shape was not confined to footbaths and children's tubs. We see, for instance, a cow drinking from such a bowl on the relief in the British Museum, no. 2211, *Ancient Marbles in the British Museum* ii, pl. XVI. It therefore is unnecessary to assume with Noack that this shape came into Christian art merely because it happened to occur in scenes of the birth of Dionysos. It would seem rather to be a shape current from the later classical period on, which as such naturally formed part of the heritage of Christian art; cf. e.g. the mosaic in San Vitale, Wilpert, *Die römischen Mosaiken und Malereien* iii, pl. 110, where both the fountain and the golden chalice presented by Theodora are of this type, and the chalice in the scene of the Last Supper in the Codex Rossanensis (Morey, *loc. cit.*).

The shape occurs also in an eighth-century painting of a bathing scene at Kuşçir

'Amra (Musil and others, *Kusejr 'Amra*, pl. XXXVIII; Herzfeld, *Die Malereien von Samarra*, p. 5).

It was not, of course, the only type of footbath or infant's tub current in late antiquity. For others see, e.g., the relief with scenes from the life of Achilles in the Capitoline Museum (Stuart Jones, *The Sculptures of the Museo Capitolino*, pl. 9, Alinari no. 27139); the ivory pyxis in Bologna with the birth and triumph of Dionysos (Peirce and Tyler, *L'Art byzantin* i, pl. 160 a); and, for Christian art, the footwashing scene on some of the columnar sarcophagi (Marion Lawrence, *Art Bulletin* xiv, 1932, figs. 1, 2, 5, 6, opposite pp. 106 and 109).

87. On a sarcophagus with scenes of the childhood of Dionysos in the Glyptothek, Munich, Furtwängler, *Beschreibung der Glyptothek* no. 240; Winckelmann, *Monumenti antichi inediti* no. 52; *JOAI*, xii, 1909, p. 215, fig. 111.

88. On a sarcophagus with somewhat similar scenes in the Capitoline Museum, Righetti, *Descrizione del Campidoglio*, p. CLXI; Stuart Jones, *op. cit.*, pl. 24; *JOAI*, xii, 1909, p. 221, fig. 112.

89. On a sarcophagus of the Antonine period in Mantua (Robert, *Die antiken Sarkophag-Reliefs* iii, 1, pl. v, nos. 20 and 20¹; Alda Levi, *Sculture greche e romane del Palazzo Ducale di Mantova*, no. 190, pp. 91 f., pls. cii b, cvi. The wounded Adonis.

APPENDIX TO LIST B

Examples with base either hidden by some other object in the scene, or lost owing to fragmentary preservation.

90 and 91. On two kylikes by Douris with the adventures of Theseus, one in London, no. E48 (photo. Mansell 3175; Beazley, *ARV.*, p. 283, no. 46), and one in the Louvre, no. G126 (Pottier, *Vases antiques du Louvre* iii, pl. 112; Beazley, *ARV.*, p. 287, no. 109). The rim is offset but the offsetting is so slight that it is indicated only by horizontal lines. Four handles. The bowl is half hidden by a rock which would conceal the base, if it existed. The height of the podanipter in both cases suggests, though it does not prove, the presence of a tripod base, and in the photograph of the vase in the Louvre (Pottier, *loc. cit.*) something appears between bowl and rock at the left which might just possibly be a bit of the base. The Louvre kylix, however, has been extensively restored, and without an accurate knowledge of these restorations we cannot be certain of any detail of the podanipter. The presence of four handles might seem to favor a base of the type of our Class I, for it is only on bowls of this class that I have found four handles represented in figured scenes. The Boston louterion (List A, no. 85), however, shows that four handles were sometimes combined with a ring base in bowls of great size.

92. On a kantharos with Theseus and Skiron by the Penthesilea Painter in Munich, Diepolder, *Der Penthesilea-Maler*, pl. 9; Beazley, *ARV.*, p. 588, no. 109. Only the rim, which is decorated with a tongue pattern, a small piece of the body, and perhaps part of one handle remain. The handle—if that is what it is—may be of the column-krater type. The restoration of the base that appears in *AZ.* 1865, pl. cxv is fanciful; the restorer has assimilated the podanipter to a kylix. The original form must have been of either Class I or Class II, since Theseus' foot appears beneath the bowl.

93. On a calyx krater by the Dinos Painter in the Ashmolean Museum, Beazley, *AJA.* XLIII, 1939, p. 619, fig. 1, pl. x; and *ARV.*, p. 790, no. 11. Theseus and Skiron. Base lost in break. A base of Class II would be perhaps possible, if the feet were very short and were attached fairly near the center of the bowl, like those on another example of about the same date, above no. 28. In view of the date of the vase, Class III would seem likely. Two lifting handles attached at rim.

THE METROPOLITAN MUSEUM OF ART

MARJORIE J. MILNE

ADDITIONAL NOTE

That bowls with handles attached by means of u-shaped prolongations ending in flower finials continued to be made in the Roman period is shown by the examples (some from graves of the second century A.D.) collected by Radnóti, *Die römischen Bronzegefässe von Pannonien*, p. 131.

THE "ADZE" TABLETS FROM KNOSSOS


LITTLE in the way of text criticism has been attempted for the Minoan inscriptions, and rightly. For the most part, only transcriptions of the originals are available, and it is hardly worth while to play a guessing game based on some other person's interpretation of what is visible in the original inscription. Under the right conditions, however, more information can be added to our meager store by textual emendation.

Only one photograph has so far been published of any group of inscriptions kept



FIG. 1.—THE "ADZE" TABLETS

together in the sequence in which they were found (fig. 1).¹ This represents a small part of a larger hoard found on the floor of Magazine VIII at Knossos. By using a plaster backing, it was possible to keep seven of the tablets found in their original arrangement. Sir Arthur Evans published a transcription of three of these, the third, sixth and seventh (*PM.* fig. 656), but more can be read with the help of information available from other inscriptions of the same class, i.e., Linear Class B.

The tablets receive their name "Adze" Tablets from the pictorial sign , visible on six of the seven after the words of the inscription. On one of them the part that should have contained this sign is missing. Five of the tablets are still complete enough to show some trace of the numbers which followed the sign. We are certainly

justified in assuming that this sign, followed by numbers, occurred on all the tablets when they were intact. No other tablets with the "adze" sign have as yet been published.

¹ This photograph was published twice, *SM.* fig. 21 and *PM.* iv, fig. 655. The following abbreviations are used in this article:

Aeg. Arch. no. 1. { H. R. Hall, *Aegean Archaeology*, London, 1915. The photographs referred to are on
Aeg. Arch. no. 2. { plate XXXIII, opposite p. 220.
Altkr. J. Sundwall, "Alt-kretische Urkundenstudien," in *Acta Academiae Aboensis Humaniora* x, 2, 1935.
Ant. Crét. a. { G. Maraghiannis, *Antiquités Crétoises, Troisième Série*, 1915? The photographs referred
Ant. Crét. b. { to are on plates XXXVIII (called "a" in the article) and XXXIX (called "b").

On two tablets (the second and seventh according to their arrangement in the photograph) the sign 𐀓 (B 58)² appears over the "adze" sign. It may also have occurred on some of the other tablets.³ This sign (B 58) is a regular sign of the Minoan syllabary used fairly often in words. Its ideographic or logographic use is illustrated here and in *PM*, fig. 680, which is a tablet with five lines of legible writing. On each line there is a single word, then a blank space, followed by B 58 and the number one. No other certain example of the ideographic use of B 58 can be cited from the published inscriptions of Class B.⁴

Kn. A. J. Evans, "The Palace of Knossos," in *BSA*, 6, 1899-1900. The photographs referred to are on a plate opposite p. 18.

Metr. Mus. Copies of Cretan inscriptions on display at the Metropolitan Museum of Art in New York City. I am deeply indebted to Miss Gisela M. Richter and her staff for making it possible for me to examine these carefully.

M. Rechn. J. Sundwall, "Minoische Rechnungsurkunden," in *Societas Fennica Commentationes Hum. Litt.* iv, 4, 1932, pp. 1-10. The inscriptions mentioned occur in figs. 4-9, divided into groups called A, B, C, D.

Pyl. K. Kourouniotis and Carl W. Blegen, "Excavations at Pylos, 1939," in *AJ.A.* xliii, 1939, pp. 564-70.

PM. A. J. Evans, *The Palace of Minos at Knossos* iv, 2, 1935 (Macmillan & Co.).

SM. A. J. Evans, *Scripta Minoa* 1, 1909 (Oxford, At the Clarendon Press).

² All references to signs of the Cretan syllabary will be made by using the number assigned to them *PM*, fig. 666, preceded by the letter B to indicate Linear Class B.

While most of the variations of any given sign are simply due to differences in handwriting on the tablets, and can therefore be disregarded, some variations seem to have phonemic significance. As a result, it is sometimes necessary to distinguish between variants listed together under the same number by Sir Arthur Evans. This is especially true of the following:

- | | | | | | |
|---------|---|----|---|----|---|
| B 23 a) | 𐀓 | b) | 𐀓 | b) | usually has a cross-stroke at the top, and sometimes at the bottom, of the vertical line. Its curves are much more elaborate than those of a). Sometimes there is a circle at the juncture of the curves and the vertical. The difference between the signs is even more pronounced in the Mainland inscriptions. |
| B 41 a) | 𐀓 | b) | 𐀓 | a) | usually has three horizontal strokes above the vertical, sometimes only two. |
| | | | | b) | usually has two horizontal strokes, rarely only one, above a "y"-like base. The base is never just a straight line, as in a). |
| B 44 a) | 𐀓 | b) | 𐀓 | a) | regularly has three short strokes on either side of the vertical. They seldom cross the vertical. |
| | | | | b) | regularly has two horizontal strokes which cross the vertical. |
| B 49 a) | 𐀓 | b) | 𐀓 | a) | always has two legs, usually crossed. |
| | | | | b) | has an additional vertical stroke between the legs, which are rarely crossed. |
| | | | | | The superstructure of the two signs is usually similar, but in certain inscriptions that of a) is quite different from that of b). |
| B 50 a) | 𐀓 | b) | 𐀓 | a) | has an upper protrusion only at the right. |
| | | | | b) | has an upper protrusion at both ends, and sometimes an additional line or lines between them. |

In addition, the signs B 21 𐀓, 𐀓 and B 36 𐀓, 𐀓 each have two variants, one with a single horizontal cross-stroke and the other with two. The variants may have different phonemic values, but the evidence is not decisive.

³ Evans' transcription of Tablets no. 3 and no. 6 (*PM*, fig. 656) omits the sign. It is not visible in the photograph for either of these tablets. It may, however, have occurred on Tablets no. 4 and no. 5. The damaged condition of the tablets makes certainty impossible.

⁴ B 58 may also have appeared over a countersigned ingot (*PM*, fig. 649b), although the sign is not certain here. Evans' transcription was printed upside-down, as is shown by what is left of the sign 𐀓 (B 40), so frequently final in Linear B words. The same fragment is partially reproduced *PM*, fig. 637 No. 2, in this case right side up.

We may also, perhaps, recognize as B 58 the small mark occurring between the heading and the rest of the inscription in *PM*, fig. 766a, a "chariot" tablet; but such a use is unprecedented in the published inscriptions. The mark may resemble the sign by chance.

Several signs of the Linear B syllabary are used ideographically with numbers; 𐀡 (B 51) is often used in this way. Others are found on various types of inventory tablets.

Syllabic signs superscribed over pictographs are rarer, but they also occur. In *P.M.* fig. 714 c, d, e, we see such signs written above vessels of various types. It is obvious that such superscriptions were used to describe the associated pictograph in some way, but their actual significance is unknown. The material published is so scanty that it cannot even be asserted that certain signs are used only with certain pictographs, although the published inscriptions seem to indicate that this is the case.

The inscriptions on the "Adze" Tablets seem to follow a fixed pattern. The first five seem to have consisted of an initial word in large characters followed by another in smaller characters, then the "adze," sometimes with B 58 superscribed, followed by varying numbers. The sixth tablet has two registers. Since this is the penultimate tablet of the group, something as yet not understood may account for the difference.

The last tablet must be considered separately. The number on it, 217, is probably the sum of the numbers on the preceding tablets, although, as is almost invariably the case with the published inscriptions, the sum cannot be checked because some of the items included in it are missing.

The word 𐀡𐀢 (B 59, 20) shows that this is a "summation" tablet. We are told that it is found on several tablets containing lists of objects followed by numbers. Even when the sum cannot be checked, the position of the word at the end of a series of objects, and the fact that the number accompanying it (when legible) is always large enough to be the sum of the preceding numbers makes the statement that 𐀡𐀢 means "total" very likely.

Only one other published inscription of Linear Class B has the word in exactly this form. This is a fragment (*Ant.Crét. b*) consisting of six legible lines, each with a word, an ideogram and a number. In the last line the word is 𐀡𐀢 and the number is larger than the sum of the numbers in the legible lines.

The large tablet *P.M.* fig. 686 seems originally to have had three paragraphs, each with a heading and a list of words followed by the "man" sign, 𐀡 . The sum of the entries in the first paragraph is given in the eleventh line, that of the second in the nineteenth line. There is, however, some question about the word for "total" here. The signs B 59, 20 are certain. Sundwall (*Altkr. 24*) insists that this is the complete word. Evans transcribes the word as 𐀡𐀢𐀡 (B 59, 20, 52) in both cases. The photograph of the inscription (*Ant.Crét. b*) seems to show faint traces of the legs of the sign B 52.

An inscription from Pylos (*Pyl.* fig. 10) sheds some light on the question. It consists of six rather long lines of writing. The third, fourth and fifth lines each contain a five-word formula, followed by the sign 𐀡 (B 88) and numbers. In each case the second word of the lines differs from the second in the other lines, the rest of the words are the same and occur in the same order. The second line lacks the first word of the formula, but follows the pattern in other respects. In each of these four lines the penultimate word of the formula is 𐀡𐀢𐀡 (B 59, 20, 49a). In line six, the last line of the inscription, we have the same pattern, but the penultimate word is 𐀡𐀢 .

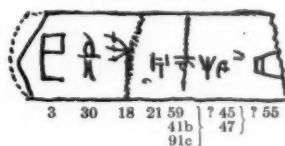
Here we have an indication that this word for "total" had, under certain conditions, a different form, made by adding a suffix to the original word. Although χ (B 52), which Evans writes as the suffix in *PM.* fig. 686, and \mathfrak{X} (B 49a), which is the suffix in the Pylos inscription, are somewhat similar in appearance, they are different signs. The photograph of the "man" inscription does not show any trace of the superstructure of B 49a. Therefore, substituting B 49a for B 52 here is not justified, although it is not impossible. In any event, there is no doubt that this word for "total" had at least two different forms. The longer form may have indicated a "sub-total," but it is dangerous to make conjectures on the basis of two inscriptions, especially when they belong to different phases of writing.

Another word for "total," used in much the same way as $\mathfrak{F}\mathfrak{H}$, is $\mathfrak{F}\mathfrak{Y}$ (B 59, 46).⁵ It occurs in a larger number of the published inscriptions than $\mathfrak{F}\mathfrak{H}$, and seems to have been used with a different group of pictographs.⁶ There is some evidence that the difference between $\mathfrak{F}\mathfrak{H}$ and $\mathfrak{F}\mathfrak{Y}$ is due to a morphological distinction of gender in Minoan. A form of $\mathfrak{F}\mathfrak{H}$ is found in an inscription with the pictograph \mathfrak{A} , "man," while $\mathfrak{F}\mathfrak{Y}$ is used in one with \mathfrak{A} , the "woman" sign.

If $\mathfrak{F}\mathfrak{H}$ is the masculine form of the word for "total," it follows that the word for "adze" must have been masculine in Minoan.⁷

In the following discussion of the remaining six "Adze" Tablets, no. 3 and no. 6, which have been transcribed by Evans, will be analyzed first, then no. 5, on which little restoration is possible, and no. 4, where little restoration is needed. Tablets no. 1 and no. 2 will be left to the last.

TABLET NO. 3



The first word of this inscription does not occur elsewhere among the published inscriptions of Linear Class B, but Sundwall tells us (*Altkr.* fig. 23) that $\mathfrak{E}\mathfrak{A}$ (\mathfrak{A}) occurs four times in the "cattle" inventories. We may take it that he means that

⁵ The syllabic sign B 46 has two variants, \mathfrak{Y} and \mathfrak{Y} . Both are used in the word for "total." The evidence available so far seems to show the variation has no significance. For discussions of the various words for "total" see *PM.* 693 and *Altkr.* 24, 25.

⁶ The word $\mathfrak{F}\mathfrak{Y}$ appears in the following published inscriptions:

PM. fig. 686, line 6, with the "woman" sign, \mathfrak{A} .

SM. fig. 23 and *PM.* fig. 679 (slightly different, but probably transcriptions of the same inscription) with the "banner" sign.

PM. fig. 838 a, a "sword" tablet.

Kn., column 2, fig. 1. The word occurs twice on this small fragment, in the first and third lines. The feminine (?) "cattle" sign, \mathfrak{A} , followed by a number, occurs in the second line.

We are told (*Altkr.* 24) that the word was also used with the sign \mathfrak{W} (B 51); and on a "sword" tablet somewhat vaguely described *PM.* 856.

⁷ Evans writes $\mathfrak{F}\mathfrak{Y}\mathfrak{A}$ (B 59, 46, 44a or b?) for the second word in line 6 of *PM.* fig. 682. The photograph of the inscription (*Ant. Crét. b*) does not support this reading. The second sign seems to be B 21, not B 46; the word apparently reads: $\mathfrak{F}\mathfrak{H}\mathfrak{A}$. This is unfortunate, since it would have been interesting to find some evidence for the possible existence of a morphological variant of the feminine as well as the masculine "total" word.

two words, $\text{E} \Delta$ and $\text{E} \Delta \gamma$, are found four times altogether in this type of inscription. We have his transcriptions of two of the tablets with $\text{E} \Delta$:

$\text{V} \text{C} \text{Y} \text{F} \text{F} \quad \frac{\text{E} 200}{\text{E} \Delta}$ (*M.Rechn.* D no. 9)

$\text{Y} \text{Y} \text{Y} \quad \frac{\text{E} 29 \text{ Y} 43}{\text{E} \Delta \text{ E} 2 \text{ E} 24}$ (composite of transcriptions given *M.Rechn.* D no. 4 and *Altkr.* fig. 21, no. 4)

We may therefore assume that $\text{E} \Delta \gamma$ occurs at least once, and maybe twice, in unpublished inscriptions. In the two inscriptions we have, $\text{E} \Delta$ is written as the initial word in the second register of the inscription. Since words recurring in several inscriptions of this type tend to assume the same or analogous positions, it is likely that $\text{E} \Delta \gamma$ was also initial in the second register.

The reading of the second word is not certain. Evans' transcription reads $\text{Y} \text{Y} \text{Y} \text{F}$ (B 21, 59, 47, 55) and Sundwall lists a word of this spelling (perhaps the one in question) in *Altkr.* fig. 4, II, 2. In the photograph the first sign (B 21) is clear, but the tablet is cracked where the second sign occurs. From what is still visible, it might be Y (B 59), $\bar{\text{Y}}$ (B 41b), or Y (B 91c). B 59 and B 41b are used after initial B 21 in other words. That Evans and Sundwall agree on the reading B 59 is in its favor, but does not settle the question, since their reasons are not given.⁸

The third sign is also ambiguous. It may be B 47, which is usually written Ψ , but sometimes occurs as Ψ . It may be B 45, which has two common variants, Ψ and Ψ . The question to be decided is this: can we recognize the short horizontal cross-bar of B 45 in the faint mark visible in the photograph where the oblique lines meet the vertical? These tablets seem to have been written with considerable care, and, in the published inscriptions at least, B 47 is usually written with curved lines when the writer was careful, probably to avoid just this sort of ambiguity. I would therefore be inclined to read B 45 here until further evidence is available.

⁸Normally, when Evans and Sundwall agree on the reading of a word, that reading should be accepted, since both had access to the original inscriptions. In this case, however, their agreement is not explicit. Sundwall merely lists a word of this spelling, without telling us his source; we have no way of checking his reading. Evans does not mention the word at all; he merely transcribes Tablet no. 3. Typographical errors occur in his transcriptions. He himself sometimes transcribes a word one way and spells it another when he is discussing it. See, for example, *PM.* fig. 724 a 1, the transcription of an inscription from Thebes, transcribed again fig. 733, this time with a normalization of the signs and a word division which he disregards in fig. 734 E and F. Compare his transcription of the last word in line 2 of *PM.* fig. 687 a with the photograph of the inscription, Supplementary plate LXII, where the second sign is certainly B 55. Sometimes earlier errors are corrected in a later transcription without any mention of the original error. For example, word 1 of line 4, *SM.* fig. 25 is given correctly *PM.* fig. 689, and the last word of *SM.* fig. 30 is corrected in *PM.* fig. 838c. The last sign of the first word in *PM.* fig. 707a has been omitted, as the photograph of the inscription *Ant.Crét. b* clearly shows. Other instances, both corrected and uncorrected, can be given. Sometimes these errors are typographical. Sometimes they are not, strictly speaking, errors. The transcription shows what Evans thought he saw at one time; later, in discussing a word, he finds evidence to warrant an emendation, but does not correct the transcription. As a result, all transcriptions which cannot be checked by photographs must be used warily; and when photograph and transcription do not jibe, the evidence of the photograph must be accepted, unless Evans gives his reasons for ignoring it. His expressed judgment about a reading, based on a wide and thorough knowledge of the various scripts, is invaluable.

The last sign is certainly B 55, although there seems to be no reason why it should be slightly smaller than the other signs in the word. Final signs are sometimes written smaller, but there is usually evidence that the writer was pressed for space.

The small horizontal loop to the right of the word, just before the "adze", cannot be explained.

Since no parallel for this word exists in any of the published inscriptions of Linear Class B, its spelling must be considered uncertain.



The first word is found in two other inscriptions, in each case as the first word in the second register of "cattle" inventories.

(M.Rechn. B no. 3)⁹

(Metr.Mus. no. 13.230.12)¹⁰

The second word cannot be restored. The first sign is certainly B 5, the last is probably B 25 (perhaps B 54?). The intermediate sign or signs are hopelessly mutilated.

The first word of the second register is clear, but does not occur elsewhere.

The second word of the second register is transcribed as $\ddagger\ddagger\ddagger$ (B 44b, 45, 25?) by Evans. The spelling $\ddagger\ddagger\ddagger$ (B 44b, 45, 59) is equally justified by the photograph and has in its favor the fact that this word occurs at least five times elsewhere in Linear Class B, while $\ddagger\ddagger\ddagger$ does not occur at all.

(Altkr. fig. 21, no. 5)¹¹

(Altkr. fig. 21, no. 1)

(Metr.Mus. no. 13.230.14)¹²

(PM. fig. 609a)

⁹ This is not an accurate copy of Sundwall's transcription. He thinks that the sign I have written \mathbb{W} (B 51) is the "balance" sign. For a discussion of this point see PM. 663, n.2.

¹⁰ This inscription is probably the one transcribed by Sundwall, Altkr. fig. 20, no. 4, though his reading is quite different. [See footnotes 11 and 12 on next page]

In three of the examples given above, the word is initial in the second register of a "cattle" inventory. According to *Altkr.* fig. 23, the word occurs four times in these inventories; one example is therefore in an unpublished inscription. The fourth example given above is from a "granary" inventory.

TABLET NO. 5



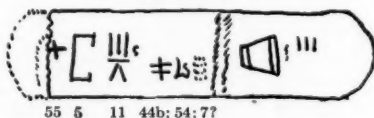
Only the first word of this inscription can be read. We find, once more, that it occurs in the initial position of the second register of two "cattle" inventories.

𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 (PM. fig. 678a)

𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 (Altcr. fig. 21, no. 6)

The amount of debris between Tablets no. 4 and no. 5 seems to indicate that an entire tablet was crushed out of existence here. Nothing can be made of the few traces of signs that remain.

TABLET NO. 4



The restoration of the first sign (obviously all that is missing) of this inscription is an easy matter. The cross toward the top of the line of writing which is still visible can belong only to one sign of the Class B syllabary, 𐎧 (B 55). This conjecture is confirmed when we find that the word B 55, 5, 11 occurs in a published "cattle" inventory (initial, second register) and, we are told (*Altcr.* fig. 23), can be found four times in these inventories.

𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 (PM. fig. 678b)

It is also found in the last line of a three-line "grain" tablet.

𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 𐎧𐎠𐎧 (Metr. Mus. no. 13.230.6)¹³
line 3

¹¹ An inscription of this type should have an initial word in larger characters before the registers. Since Sundwall's purpose in giving these inscriptions is to illustrate his theories about the use of the ideographic signs he often transcribes only the second part of the inscription. It is impossible to tell whether the first word is extant or not.

¹² A transcription of this tablet appears in *M.Rechn.* D no. 5. A photograph of the original (in the British Museum) is reproduced *Aeg.Arch.* no. 2.

¹³ Evans' transcription (*PM.* fig. 658) omits the last sign of this word. Enough of it is visible in the various photographs of the inscription to make its restoration a certainty. See *PM.* fig. 637c; *Ant. Crét.* a; *Aeg.Arch.* no. 1. The original is in the British Museum.

Only the first two signs of the second word are clear: (B 44b, 54). While nothing can be made of the traces of the last sign, they permit restoring the word as $\# \text{L} \square$ (B 44b, 54, 7), which occurs in two other inscriptions.

$\square \Psi \Pi \# \text{L} \square, \text{A} \# \Psi \square, \text{S} + \text{A} \#$ (PM. fig. 763m)

$\text{L} \# \text{L} \square \# \text{L} \square$ (Ant. Crét. b) ¹⁴

Before we consider the remaining tablets, let us see if any significant facts have presented themselves.

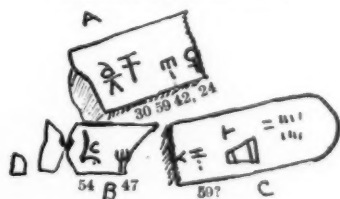
While we have been able to find possible parallels for only two of the secondary words on the tablets (the last on Tablet no. 6 and perhaps the second on Tablet no. 4), we have, *without exception*, been able to find parallels for the initial words of the five tablets so far analyzed, and, what is more, in every case except that of the "summation" tablet, no. 7, there is evidence that these words were also used initially in the second register of "cattle" inventories. No "sum" tablets have been published for these inventories. Perhaps none exist.

The importance of this discovery cannot be over-emphasized. Only a small fraction of the words in the published inscriptions occurs more than once; very few more than twice. The longest tablet published (PM. fig. 686) has more than sixty legible words; less than ten appear elsewhere. Some inscriptions do not have a single word that appears in the same form again.

Here we find a group of four inscriptions, each with an initial word that is found elsewhere in Linear B, usually several times, and, among its other uses, is always found at least once in the "cattle" inventories and in a specific position in these inventories.

This information will prove useful in the discussion of Tablets no. 1 and no. 2, where the first word in each case is mutilated.

TABLETS NO. 1 AND NO. 2



Evans assumed, as anyone might when first looking at these tablets, that no. 2 was almost complete, and that the last part of no. 1 was missing.¹⁵

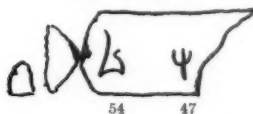
Yet, as we look more carefully at the nest of tablets in the photograph (fig. 1) we see that this conclusion is impossible. We are told that the tablets were kept, as far as possible, in the order and relative position in which they were found. They

¹⁴ See note 7, where the second word of this line is discussed.

¹⁵ His words (PM. 671, n.1) are: "... the topmost, of which only the first half is preserved. ..."

$$\begin{array}{rcl}
 \text{83} & \frac{\text{𐀓𐀓𐀓𐀓 27} \quad \text{𐀓𐀓𐀓𐀓 18}}{\text{𐀓𐀓𐀓𐀓}} & (\text{Ant. Crét. a}) \\
 \text{𐀓𐀓𐀓𐀓} & \frac{\text{𐀓𐀓𐀓𐀓 27} \quad \text{𐀓𐀓𐀓𐀓}}{\text{𐀓𐀓𐀓𐀓} \quad \text{𐀓𐀓𐀓𐀓}} & (\text{M. Rechn. D no. 8}) \\
 & \frac{\text{𐀓𐀓𐀓𐀓 27} \quad \text{𐀓𐀓𐀓𐀓}}{\text{𐀓𐀓𐀓𐀓} \quad \text{𐀓𐀓𐀓𐀓 5}} & (\text{Altkr. fig. 21 no. 8})
 \end{array}$$

TABLET NO. 2



Only two signs are left on this tablet: the last of the primary word and the first of the secondary word. Without an outside clue it is hopeless to attempt to restore the second word on the basis of a single sign. For the first word there is more information. In the first place, the ending 𐀓 (B 54) is infrequent in Linear B. It occurs only in nine different words. In the second place, it is likely, to judge from the remaining fragments of the tablet, that only a single sign has been lost. Finally, since all the other initial words on the "adze" tablets have parallels in words from the second register of the "cattle" inventories, we are justified in checking to see if there is a two-sign word ending in B 54 among the words found in this position that does not already appear on the "adze" tablets.

The following is a list of the words appearing in the initial position of the second registers of the "cattle" inventories, or in an analogous position if there is no second register. Those also appearing on the "adze" tablets are marked with an asterisk.

1. 𐀓𐀓𐀓	*6. 𐀓𐀓	*11. 𐀓𐀓	14. 𐀓𐀓𐀓
2. 𐀓𐀓𐀓	*7. 𐀓𐀓 (𐀓)	12. 𐀓𐀓	15. 𐀓𐀓𐀓
3. 𐀓𐀓	8. 𐀓𐀓𐀓	13. 𐀓𐀓𐀓	*16. 𐀓𐀓𐀓
*4. 𐀓𐀓𐀓	9. 𐀓𐀓		*17. 𐀓𐀓𐀓
5. 𐀓𐀓𐀓	10. 𐀓𐀓𐀓𐀓 (dubious)		18. 𐀓𐀓𐀓

We note that one of these, 𐀓𐀓 (B 10, 54), the twelfth on the list, fulfills our requirements. It is found in only one published inscription,

$$\frac{\text{𐀓𐀓 27} \quad \text{𐀓𐀓 10}}{\text{𐀓𐀓}} \quad (\text{Altkr. fig. 20 no. 8})$$

but we are told (*Altkr.* fig. 23) that it occurs three times altogether in these inventories.

Interestingly enough, we also note that the smudge appearing in the photograph (fig. 1) along the crack in just the place where B 10 should be, resembles B 10 more than any other sign of the Linear B syllabary.

Figure 2 shows how these tablets would have looked originally if the restorations suggested are correct.

Unfortunately, we can go no further. The tablets still cannot be read. All we can say is that the series, when complete, referred to 217 objects, probably adzes, some at least further described by the sign 𐀀 (B 58). The number of "adzes" varies from tablet to tablet. The largest number legible is 30 on Tablet no. 6, line 1.

In each case the "adze" is preceded by a primary word written in large characters, and a secondary word in smaller signs. The sixth tablet differs from the others, not only because it has two registers, but because the order of the words in the second register may be reversed. That is, while we usually find that the primary word has a

parallel in the second register of the "cattle" inventories, and that the secondary word has no parallel at all in the published inscriptions, or, if it does have one, the type of inscription in which it occurs cannot be predicted, here the primary word has no parallel, while the secondary word seems to occur in the usual place in the "cattle" inventories. This may be accidental, but it is a fact to be noted.

It will be interesting to see, when the rest of the tablets found at Knossos are published, if any of the other "adze" tablets also have primary words paralleled in the "cattle" inventories; and, if a record was kept of the sequence of the "cattle" inventories, whether their order has any relation to that of the "adze" tablets.

One possible relationship between "adze" and "cattle" inventories comes to mind immediately.

If the "adzes" really are adzes or some kind of axe-head, the tablets must record the number stored, received, handed out, or perhaps sharpened. While they had a certain value in their unattached state, their chief value lay in the fact that when they were attached to a handle, they were useful instruments. Instruments for what? Among other things, perhaps for the slaughter of cattle. Considering the priestly character of the rulers of Knossos, we may conclude that they had something to do with the slaughter of cattle at sacrifices.

One of the most striking things about the "cattle" inventories is the fact that the number of cattle listed on the tablets is almost always either 100, a multiple of 100 or a fraction of 100 (usually 50). It is for this reason that Evans calls these inscriptions "percentage tablets" (*PM.* 692-3). Sundwall goes further, and calls them "hecatomb inventories." He discusses them under the general heading of "Opferinventare" (*Altkr.* 25 ff.). If he is right, and the "cattle" inventories give the numbers of cattle slaughtered at certain festivals, perhaps the "adze" inventories list the numbers of instruments used at these sacrifices, or reserved for use at such times. Then the words common to both types of inscription may be a kind of date, perhaps the name of the festival or the god to whom it was dedicated, or



FIG. 2.—The "ADZE" TABLETS partially restored

the name of the official in charge, as Sundwall has already suggested in connection with the "cattle" inventories.

Further conjecture is useless until the publication of new inscriptions either confirms or denies the assumptions already made.

One thing is certain: if so much headway can be made simply because we know the sequence of one small group of seven inscriptions, much more can be done, with the help of text restoration, when we have several groups with which to work.

BROOKLYN COLLEGE

A. E. KOBER

L. CALPURNIUS PISO

IN THE course of his publication of a statue-base from Samothrace in *AJA*. xlv, 1940, pp. 485-493, H. Bloch remarks (p. 489): "The base of Samothrace is not the first inscription in which Piso's name occurs, but it is the first base of a statue of Piso which has thus far been found." Before accepting the latter part of this statement, it will be well to examine some further epigraphic evidence, given in an honorary inscription from Beroea in Macedonia. It was first published by Delacoulonche in his "Mémoire sur le berceau de la puissance macédonienne des bords de l'Haliacmon et ceux de l'Axius," in *Archives des Missions Scientifiques et Littéraires* viii, 1859, p. 247, no. 33, where he described it as a "piédestal en marbre blanc à l'entrée d'Orta-Djami (μεσὸ-δζαμί)." M. G. Demitsas (ἡ Μακεδονία, Athens, 1896, p. 70, no. 58), republished the inscription from Delacoulonche, with some inaccuracies of his own. Finally, A. J. B. Wace saw the stone in 1911-12 and A. M. Woodward published Wace's notes in *BSA*. xviii, 1911-12, p. 164, no. 37. The inscription is referred to by Rostovtzeff, *Social and Economic History of the Roman Empire*, p. 560, n. 92. During a visit to Beroea in the autumn of 1936, C. F. Edson and I made a thorough search, but found no trace of the stone. The following is a tracing of Delacoulonche's copy:

ΛΕΥΚΙΟΝ ΚΑΛΠΟΡΝΙΟΝ ΠΙΣΩΝΑ
ΑΝΟΥΠΑΤΟΝ ΒΕΡΟΙΑΟΙ ΚΑΙ ΟΙ ΕΝΚΕΚΤΗΜΕΝΟΙ
ΡΩΜΑΙΟΙ ΤΟΝ ΕΑΤΩΝ ΠΑΤΡΩΝΑ

In l. 1, Wace supports Delacoulonche's reading Καλπόρνιον, against Demitsas' Καλπούρνιον, and in l. 3, Delacoulonche's reading ΕΑΤΩΝ; in l. 2, Wace reads ΒΕΡΟΙΑΙΟΙ, against Delacoulonche's ΒΕΡΟΙΑΟΙ. Both forms are found in the inscriptions of Beroea. We may transcribe the text thus:

Λεύκιον Καλπόρνιον Πίσωνα
ἀνθύπατον Βεροιαῖοι καὶ οἱ ἐνκεκτῆμενοι¹
Ῥωμαῖοι τὸν ἐατῶν πάτρωνα.

The question as to which L. Calpurnius Piso is meant here can be narrowed down to a choice between two candidates for the honor, either L. Calpurnius Piso Caesoninus, consul in 58 B.C. (Münzer, *RE*. iii, 1387-90, no. 90, s.v. *Calpurnius*), or his son, L. Calpurnius Piso Frugi pontifex, consul in 15 B.C. (Groag, *RE*. iii, 1396-9, no. 99, s.v. *Calpurnius*). It would be most natural, with Woodward (*op. cit.*, p. 164), to refer our inscription to the elder Piso, whom we know from Cicero's *Pro Sestio* and *In Pisonem* to have been governor of Macedonia from 57-55 B.C.² Demitsas, however (*op. cit.*, p. 70), preferred to see in it his son, the contemporary of Augustus. In

¹ For this phrase, cf. M. N. Tod, *BSA*. xxiii, 1918-19, pp. 85-6, no. 13, 11.4-5: οἱ συνπραγματευόμενοι Ῥωμαῖοι. Our inscription is cited on p. 86.

² For the elder Piso see also Drumann-Groebe, *Geschichte Roms* ii, pp. 51-65, where it is pointed out (p. 55, n. 5) that "Cicero spricht Pis. 86.97 von drei Jahren, allein im dritten kam sein Nachfolger;" Drumann, therefore, it seems, assigns Piso's governorship only to 57-6.

this he is followed by Groag (*PIR.*² C.289, pp. 61, 63, 64, 65), who, instead of giving the normal interpretation, uses the Beroean inscription in an attempt to prove that L. Calpurnius Piso Frugi was proconsul of Macedonia; p. 63: *verum enimvero eum proconsulem (Macedoniae) fuisse testatur ni fallor t(itulus) Beroeaeus* 7, (this should be 9), *qui propter formam nominis, quae est Καλπούρνιος, temporibus liberae rei publicae non usitatum ad Pisonis huius patrem referri vix potest*; and p. 64: *possis conicere Pisonem ex senatus consulto auctore Caesare proconsulem Macedoniae factum*.

The argument from the spelling Καλπούρνιος rests on a mistake of Demitsas, who has proved a broken reed before now to those who use his book without reference to Delacoulonche. It is generally agreed that in one of the years 13, 12 or 11 B.C. the whole of Thrace rose in arms, a formidable rising which was quelled by L. Calpurnius Piso Frugi, who was recalled from Pamphylia to Thrace, but there seems no evidence for the view that he was proconsul of Macedonia, though Geyer, following Gaebler, lists him as such for the years 13–11 B.C. in *RE*. xiv, 765, s.v. *Macedonia*.

It is not possible, even assuming the accuracy of Delacoulonche's copy, to decide on the basis of letter-forms whether the Beroean inscription should be assigned to the father or the son, since the study of Macedonian letter-forms has not reached the point where one can distinguish between the style of one generation and that of its predecessor or successor. If, however, on the available evidence, we assume, as I think we must, that the inscription from Beroea is in honor of L. Calpurnius Piso Caesoninus, Governor of Macedonia from 57–55 B.C., then it furnishes a close parallel to the honorary inscription from Samothrace.

J. M. R. CORMACK

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NECROLOGY

Eugénie Sellers Strong.—On September 16, 1943, Eugénie Sellers Strong died at the Clinica Polidori in Rome. With her death one of the best known and most revered personalities in the field of classical archaeology has passed away. She was born in London of an English father and a French mother. While she was still a child the family moved to Spain, and after the death of her mother she spent much time in France and Italy. These early years laid the foundation of her broad cosmopolitan interests and her linguistic range. She was educated first at the Convent of St. Paul in France, later at Girton College, Cambridge, where she took honors in the Classical Tripos in 1882. Her first interest was Greek sculpture, on which subject she gave demonstrations at the British Museum. She worked under Professor Furtwängler in Germany, and in 1895 produced an excellent English translation of his *Meisterwerke der Griechischen Plastik*. In 1896 she brought out, with Miss Jex-Blake, a commentary with translation of *The Elder Pliny's chapters on the history of art*—a most serviceable book, still in general use. In 1897 she married S. Arthur Strong, Librarian to the House of Lords. On his death in 1904 she succeeded him as Librarian to the Duke of Devonshire at Chatsworth and held this post until 1909, when she was appointed Assistant Director of the British School of Archaeology in Rome. From then on she made her home in Rome, where she became a well-known figure both as an archaeologist and a gracious hostess. During the last twenty years or so her apartment on the Via Balbo was a gathering place of her many distinguished friends and colleagues, and young students in particular were always welcome.

Mrs. Strong is best known for her work on Roman art, of which she was an enthusiastic and valiant champion. In 1900 she published an English translation of Wickhoff's *Roman Art*. This was followed in 1908 by her own book *Roman Sculpture from Augustus to Constantine*,

which soon became the standard work on the subject in the English language. In 1923 she brought out a new edition of it in Italian, and in 1928, simultaneously in English, French, and Italian a work on *Art in Ancient Rome from the earliest times to the time of Justinian*, in the *Ars Una* series. In these and other books and in many brilliant lectures and articles, she effectively espoused the cause of Roman art as worthy of study and admiration for its own sake and not merely as a reflection of Greek art. Nobody now would doubt the rightness of her position.

But Greek art also owes a debt to Mrs. Strong. She played a prominent part, for instance, in the bringing together of the memorable exhibition of Greek Art in the Burlington Fine Arts Club in 1903 and in the preparation of the fine catalogue, which appeared in 1904. In 1928 she published a descriptive catalogue of Lord Melchett's Collection of *Greek and Roman Antiques*, and in 1929 an article for the *Antike Denkmäler* on the famous fifth-century bronze head in the collection of the Duke of Devonshire. Her wide range of interests is shown also by her enthusiastic admiration of Baroque art and architecture and her publication in 1923 of a monograph on the Chiesa Nuova.

Mrs. Strong was the recipient of many honors. On her retirement in 1925 from the British School a dinner was given for her in London at which tributes were made to her work by many notable speakers. A life fellowship was founded in her honor at Girton College, Cambridge University by Mrs. Ludwig Mond and a group of friends. She gave the Charles Eliot Norton lectures for the Archaeological Institute of America in 1913-14 (later published in book form as *Apotheosis and After Life*) and in 1920 delivered the Rhind Lectures on Roman Painting at Edinburgh. At the opening of the University City of Rome in 1935 and on other important occasions she represented the University of Cambridge. She held several honorary degrees, British and foreign, was an honorary member of many scientific societies, and was made a C.B.E. in 1927. She combined indeed

to an exceptional degree the accomplishments of the scholar and the woman of the world, and has been aptly called an admirable ambassador of learning.

GISELA M. A. RICHTER

Alfred Emerson died October 19, 1943, at the apartment of his brother in New York. He was born at Greencastle, Pa., February 25, 1859, but was educated for the most part in Germany. He attended a school at Neuwied on the Rhine, then went to the University of Munich, where he received the degree of Doctor of Philosophy in 1880, at the early age of twenty-one. In 1880 or 1881 he travelled in Asia Minor with the late J. R. S. Sterrett and probably visited Greece. Returning to America he held fellowships at Princeton (1881-1882) and Johns Hopkins (1882-1887) Universities. He was at Miami University, Oxford, Ohio (1887-1889), and Lake Forest University, Lake Forest, Illinois (1889-1891), as Professor of Greek and Latin in each instance. He was then called to Cornell University, where he remained, as Associate Professor of Classical Archaeology, until 1898. For the next two years he was at the American School of Classical Studies at Athens, first as Annual Professor, then as Professor of Archaeology. During and after this time he acted as advisor to Mrs. Phoebe Hearst and purchased for her the collection of antiquities most of which are now at the University of California, though some are in the University Museum in Philadelphia. From 1905 to 1916 he was on the staff of the Art Institute of Chicago as Curator of Antiquities and Assistant to the Director. He also arranged the Museum of Christian Archaeology at the Garrett Biblical Institute in Evanston. For one year he taught at the Raymond Riordan School at Highland, N. Y. During the First World War he acted as translator and expert linguist at the Army War College in Washington, and after the armistice served in Berlin as linguist with the American military mission to Germany from 1919 to 1921. That was his last official position. In his latest years he travelled extensively, for the most part in the Mediterranean regions.

Emerson was one of the vanguard of classical archaeologists in the United States, and one of the ablest, but his published work, after his dissertation *De Hercule Homeric*, consists only of relatively few competent articles in professional periodicals. He was a remarkable linguist, speaking seven languages fluently, and his knowledge of the monuments of antiquity and the facts

of history was exceptional. He was a gentle, absent-minded scholar, without too much hard-headed common sense. He possessed a good deal of humor and enjoyed telling of his unacademic exploits in Munich. He leaves few contemporary colleagues, but those few mourn his passing.

H. N. F.

Charles Henry Hawes, former Associate Director of the Museum of Fine Arts in Boston, died at his home near Alexandria, Va., on December 13, 1943, at the age of seventy-six. Born in England on September 30, 1867, he was educated at Trinity College, Cambridge, receiving the degrees of B.A. in 1899, and M.A. in 1902. As an anthropologist, he made studies of the peoples of Asia, writing a book, *In the Uttermost East*, in 1903, in which he embodied the results of his researches. From there he went to Crete, where the discoveries of the Minoan civilization were in the course of being made, and conducted anthropological studies to determine the racial type of the Minoan peoples. For him, however, the most important result of his stay in Crete was his marriage to Harriet Boyd, the excavator of Gournia, in 1906, after which he came to America. From 1907 to 1909 he taught at the University of Wisconsin, and from 1910 to 1917 at Dartmouth College. On the entry of the United States into the First World War, Mr. Hawes returned to England, and engaged in war work. In 1919 he was called to the Museum of Fine Arts in Boston, as Assistant Director, a post he held until 1924, when he was promoted to Associate Director. In 1934 he retired from active work, and settled near Washington, D. C. To archaeologists he is best known as the author, with his wife, of that excellent little book, *Crete, the Forerunner of Greece*, which first appeared in 1909. At the Museum of Fine Arts he was instrumental in building up the collections of Early Christian Art; his principal accession is the Catalanian chapel of the twelfth century, the installation of which he superintended. He was greatly helped in his administrative work at the Museum by having had many years of business experience in his youth, before going to Cambridge University. To those who knew him in the Museum he always appeared unruffled and serene, even when the demands on his time were greatest, and his methodical and systematic mind quickly grasped and solved any problem set before him. In his dealings with the public, and with those who worked with and under him,

he was invariably exquisitely courteous, conciliatory, and self-effacing, so that often credit due to him went to others. He is survived by his widow, a son, and a daughter. S. B. L.

Vittorio Spinazzola.—*The New Pallas* vii, 1943, p. 34, reports the recent death in Rome of this well-known archaeologist, formerly Director of the National Museum in Naples, and excavator, during the years 1910–1923, of a great part of the Via dell'Abbondanza at Pompeii.

GENERAL AND MISCELLANEOUS

Early American Studies of Mediterranean Archaeology.—In a very important article in *PAPS*, lxxxvii, 1943, pp. 70–104 (23 figs.) WILLIAM B. DINSMOOR brings together what is known of American travels, studies, and acquisitions in the art and archaeology of the Mediterranean basin up to the year 1865. The first student of archaeology to be found in America was George Sandys, one of the undertakers named in the Third Virginia Charter of 1611, and a settler in 1621. He was a classical scholar, a translator of Ovid, and in 1610 and 1611 had visited Chios, Troy, Constantinople, and Egypt, where he saw, described, and illustrated the Sphinx and Pyramids. From Egypt he went to the Holy Land, and returned to England by way of Cyprus, Sicily, Naples, and Rome, examining the antiquities wherever he went. Sandys remained in Virginia only ten years, returning to England in 1631. The first casts of ancient sculpture to reach America were brought over by John Smibert, who came with Bishop Berkeley in 1728. In the eighteenth century, interest in antiquity is evidenced by the presence in libraries, private and otherwise, of such books as translations of Montfaucon's *Antiquity Explained*, and of Stuart and Revett. After the Revolution, museums began to be founded in cities, notably Peale's Museum in Philadelphia. These museums, however, had little or no concern for archaeology. Learned societies, like the American Philosophical Society, the American Academy of Arts and Sciences, and the Massachusetts Historical Society, had, or planned for, cabinets of antiquities. The first College museum to be authorized was that of Harvard in 1769. George Washington had a collection of gems, while Jefferson's interest in Classical Art is well known. He wished to see Fine Arts taught at William and Mary in connection with the Classics. Through his adaptation of the plan of the Maison Carrée at Nîmes

for the Virginia State Capitol, he initiated the Classic Revival movement in architecture in the United States. Through his influence Charles Bulfinch of Boston visited France and Italy, and his Classical contacts bore fruit in such creations as the State House in Boston, and the original design for the Capitol at Washington. American painters began to visit Italy as early as 1760, when Benjamin West arrived in Rome, and studied the ancient sculptures and cameos in the Vatican and elsewhere, being closely influenced by the teachings of Winckelmann. He was profoundly impressed by the Elgin marbles when they arrived in England, saying that had he seen them earlier in life, "the sentiment of their preeminence would have animated all my exertions." Even more important to Americans is John Singleton Copley, who visited Italy in 1774 and 1775, seeing Florence, Rome and Naples, from which place he went to Pompeii, Herculaneum and Paestum; "and thus," says Dinsmoor, "Copley is probably to be regarded as the first American to have seen a Greek temple." His portrait of Mr. and Mrs. Ralph Izard of South Carolina, now in the Museum of Fine Arts in Boston, includes among other things a red-figured volute krater, painted so accurately that it can be safely attributed to the Niobid Painter. Travellers, as early as 1752, brought back to America collections of gems and coins. West mentions Egyptian antiquities in Rome in 1760, and in 1767 presented to the Library Company of Philadelphia "a Woman's Hand from an Egyptian Mummy, in good preservation." But apart from the interest excited by Napoleon's Egyptian campaign, not much attention was paid to the antiquities of Egypt, while with Western Asia the only contacts were commercial.

In the nineteenth century, intercourse with Classical lands grew, fostered at home by the development of museums, of which Peale's continued to be of importance well into the second quarter of the century, first in Philadelphia, then in Baltimore, and finally in New York, where it fell into the hands of Phineas T. Barnum in 1841. The Smithsonian Institution was organized in Washington in 1846, in which sections in ethnology and archaeology were provided. The study of Classical Archaeology had been begun by George Ticknor and Edward Everett, who studied in Germany under Welcker. A long list of distinguished visitors to Italy is

given, with illustrations of monuments that reveal the standards of taste in the early years of the Republic. The first American to visit Greece appears to have been Nicholas Biddle of Philadelphia, in 1806. Due to his influence, the building of the Bank of the United States in Philadelphia was erected as a copy of the Parthenon, and Girard College as "a reflection of the Monument of Lysicrates." Edward Everett visited Greece in 1817 or 1818, and in 1819 became Professor of Greek at Harvard, a post which he held for five years. Largely owing to his article on the Greeks in the *North American Review* in 1823, Daniel Webster was moved to champion the cause of Greek Independence. The outstanding American Philhellene was, of course, Samuel Gridley Howe, who spent six years in Greece, fighting on the side of the Greek insurgents, and later becoming surgeon-general of the Greek fleet. After the war, he organized relief work among the people. At this time, also, many American naval vessels were cruising in Greek waters. After the war, a growing number of American travellers visited Greece. The first American organization for the study of Classical Archaeology was the Classical section of the American Oriental Society, created in 1848, which for a time was very active. The first knowledge of ancient sculpture came to America through casts, a collection of which arrived in New York in 1803. It included as well a few casts of Egyptian sculptures. Peale's Museum in Philadelphia was exhibiting casts of ancient sculpture in 1804, and the American Philosophical Society listed a few in 1806. The collection in New York was acquired by the National Academy of Design in 1841, and was destroyed in a fire in 1905. The Pennsylvania Academy of the Fine Arts, founded in 1805, also received a collection of casts, most of which was lost in a fire in 1845, although a few still survive. Boston did not have a cast collection until after 1808, when the Boston Athenaeum was founded, but by 1823 had a good one, which is now in the Museum of Fine Arts. Original works of art, brought home principally by naval officers, were for the most part of little merit. Most important were a marble relief of a horse from Herculaneum, acquired by the Boston Athenaeum in 1812, and various objects, now lost, in New York. In 1824-28, during the cruise of the frigate *Constitution* in the Mediterranean, her captain, Daniel Patterson, purchased at Megara a large headless

statue of Demeter, and one other statue, now lost. The Demeter was given to the Pennsylvania Academy of the Fine Arts, and seems to have been of fourth century workmanship; it is paralleled by a statue still at Megara, which is undoubtedly one seen by Captain Patterson, but not taken by him. The one at Megara is to be regarded as Persephone. The Demeter was for many years on a pedestal above the entrance of the Academy building at Broad and Cherry Streets in Philadelphia, and was wantonly demolished in 1937 by Italian marble-cutters under the direction of the Academy—an act Dinsmoor rightly calls "irresponsible." In 1828 occurred the epoch-making discoveries of Greek vases on the estate of the Prince de Canino at Vulci. As other Bonapartes were then living in Philadelphia, two fine red-figured vases were sent to that city by the Prince in 1836,—a stamnos by the Kleophrades Painter, now in the University Museum, and a kylix by the Pentesilea Painter, which has always been in the American Philosophical Society. In the Abbott collection of Egyptian Antiquities (see below) are a gold hair tectix and two pairs of gold earrings, excavated at Ithaca in 1812-13, which ultimately passed to this collection some time before 1843. In the field of smaller objects, gems and coins continued to be collected, and in 1805 Thomas Jefferson deposited with the American Philosophical Society a set of 150 Roman coins. Similar collections are recorded in New York and elsewhere, and coins in particular were favorite objects to be brought back by naval officers. A counterfeit factory at Syra is mentioned by George Jones, chaplain and schoolmaster of the *Constitution* frigate, in 1827. Names of distinguished collectors are given, and this interest led in 1858 to the foundation of the American Numismatic Society in New York (originally "Numismatic and Archaeological") and, in the same year, that of The Numismatic and Antiquarian Society of Philadelphia.

In the field of Egyptian archaeology, no real objects reached this country till 1823, when the Massachusetts General Hospital in Boston received a gift of a mummy, which it still possesses. As the only mummy in America, it was exhibited in various places to raise funds for the hospital, and evoked the first scientific paper on Egyptology to be written by an American, Dr. John Collins Warren of Boston in 1823. In 1826, two other mummies were acquired by Peale's Mu-

seum—these later lost in a fire. A brief "Egyptian Revival" in architecture is noted in the 1830's and 1840's. The first American collection of Egyptian antiquities was that of Col. Cohen of Baltimore, assembled in 1832, and now in the Johns Hopkins University. Other early collections were those of John Lowell of Boston (1836), now in the Museum of Fine Arts of that city, and of George R. Gliddon, now in the Smithsonian Institution; but the most important was that of Henry Abbott, acquired in 1860 by the New-York Historical Society, now on indefinite loan to the Brooklyn Museum. Early students of Egyptology in America were Gliddon, Edwin Smith, and Gustav Seyffarth.

Intercourse with Western Asia was at first purely commercial, but antiquities were sometimes brought to America. In 1817 the first cuneiform tablets to reach America were so brought. Missions in the Levant were established as early as 1819, and these missionaries explored some of the sites of antiquity, thus paving the way for archaeologists. Indeed, it was an American, Edward Robinson, who became known as the founder of Palestinian archaeology, through his topographical researches between 1837 and 1841, and again in 1852. In 1848, Lieutenant W. F. Lynch, U. S. Navy, explored the region of the Dead Sea. A direct result of Robinson's work was the foundation of the American Oriental Society in 1842. Work was done in Syria and Mesopotamia, largely again by missionaries. From the latter area slabs from the palace of Ashur-nasir-pal, sent home by Rev. William F. Williams, have found their way to the museums of Boston and New York, and to Yale, Williams, and other colleges. The New-York Historical Society acquired still others in 1859. Collections of cuneiform tablets also began to come into the possession of various universities.

In the Aegean field, the earliest explorers would appear to have been connected with the Navy. George Jones, chaplain and schoolmaster of the *Constitution* frigate, visited Troy, Mycenae, and Tiryns in 1826 and 1827. Long before he became famous, Schliemann visited America (in 1851 and 1852) and was naturalized. The first object of Aegean art to reach America was a late Minoan vase from Crete, found in Lower Egypt, and part of the Abbott collection. A pioneer in the Aegean field with American connections was Frank Calvert, English by birth, who held the American vice-consulate in the

Dardanelles, and who owned Hissarlik. He convinced Schliemann that the site of Troy was there, and it was so proved by excavation. In Crete, William J. Stillman, consul at Canea in 1865, tried to obtain permission to excavate at Knossos. That same year saw the beginning of the Cesnola excavations at Cyprus.

After 1865, the modern study of archaeology began, with the incorporation in 1870 of three museums of outstanding importance—the Museum of Fine Arts in Boston, the Metropolitan Museum in New York, and the Corcoran Art Gallery in Washington; and, nine years later, the Archaeological Institute of America was founded.

Physical Anthropology in America.—The late ALEŠ HRDLÍČKA, in *PAPS*, lxxxvii, 1943, pp. 61–64, briefly summarizes the history of physical anthropology in the United States, laying special emphasis on the contributions of Philadelphia to this study. The pioneer in the field was Samuel G. Morton, a brief biographical sketch of whom is given. His work was carried on, after his death in 1851, by James A. Meigs (1828–1879), Joseph Leidy (1823–1891) and Harrison Allen (1841–1897). The last named became the first Director of the Wistar Institute, founded in 1892, which has always devoted part of its activities to research in this field, and has valuable collections. The Museum of the University of Pennsylvania, through such men as William C. Farabee, George A. Dorsey, Ernest W. Hawkes and Ralph Linton, has also done noteworthy work. Other distinguished men mentioned, are, among others, Daniel G. Brinton and Henry H. Donaldson.

Rock-Paintings in Spain.—*The New Pallas* vii, 1943, pp. 21, 25, reports the discovery at Reguerilla, 70 km. from Madrid, of a number of rock drawings on the walls of a grotto. These drawings were found by MANUEL LAURA, Secretary of the Spanish Society of Anthropology, and represent wolves, buffaloes, elephants, and reindeer. Excavations near a neighboring village have also uncovered other rock drawings of about the same period. The whole area is now to be more closely examined under the direction of the General Commissionership for Archaeological Science.

Rock Drawings in Sweden.—In the district of Angermanland Dr. GUSTAF HALLSTRÖM of Stockholm has made an examination of rock drawings representing two elks in red ochre. The drawings are at a place difficult of access, but they were

known to the population (*The New Pallas* vi, 1942, p. 93).

Pistyan.—In the Waag valley palaeolithic settlements have been excavated for several years under the direction of L. ZOTZ. These are the first instances in Middle Europe of traces of a regular settlement with carefully built huts of this period. Recently, great heaps of bones of mammoth and reindeer, as well as of bears, arctic foxes, wolves and other animals have been found, together with remains of flint tools, arrowheads of mammoth ivory, bone utensils, and pieces of rock crystal. Investigations are being carried out by R. LAIS regarding the character of the landscape, and the conditions of climate and vegetation at the time of these settlements.

Saragossa.—*The New Pallas* vii, 1943, p. 37, summarizes a report of E. CABRÉ of excavations executed under his direction by order of the Spanish Government in the ancient Celtic settlement of Azaila. The results are important for the history of the pre-Classic and Iron Ages in the Ebro basin. Several Iberian-Celtic settlements, with Roman settlements superimposed upon them, have been identified. A barrow with a diameter of more than 70 m. was proved by the finds to have been of Celtic and Iberian origin.

Tegna, Canton of Ticino.—Above the Ponte Brolla gorge, on a hill called Castello, large Roman dwelling foundations have been discovered, together with evidence of prehistoric settlements and large ramparts. The prehistoric remains contained ceramics and utensils of the Stone Age (*The New Pallas* vi, 1942, p. 91).

Neratovice, Bohemia.—*The New Pallas* vii, 1943, p. 25, reports that at this place there has been discovered an extensive burial-place and settlement dating from the Neolithic period. It is certain that a strip of land along the Elbe from Celatovice, through Brandeis, Elbekosteletz, Lobkowitz and Neratovice was continuously colonized for a long time. The new finds belong to the so-called Corded Ware civilization. Remains of round buildings that have also been discovered seem to have been made by a later population.

Prehistoric Fortification.—*The New Pallas* vi, 1942, p. 97, reports that near Barranco de la Yecla, in the region of Burgos, Spain, a prehistoric fortification dating from about 1000 B.C. has been unearthed. In the same area remains of buildings of the Roman and Visigothic periods have been laid bare, and ceramics, arms, tools, and trinkets found.

Skive, Jutland.—*The New Pallas* vi, 1942, p. 97, has a report from this place that near the village of Kisum a tomb of a woman of the Bronze Age has been discovered. Among the finds are two gold spiral rings, a bronze knife, two terra-cotta vases, and some amber beads.

Origin of the Goths.—*The New Pallas* vii, 1943, p. 10, publishes a report from Stockholm that ERIC OXENSTIERNA has scientifically proved, by a comparison of various tombs in Sweden with others in the basin at the mouth of the Vistula, that the Goths in fact, as their tribal legends report, came from Sweden into the basin of the Vistula. Several volumes in which he sets forth his results are in press.

Chessmen and Chess.—The discovery at Nishapur, in a house of the early ninth century, of a dozen carved ivory chessmen, prompts CHARLES K. WILKINSON, in *B.M.A. n.s. i*, 1943, pp. 271-279 (9 figs.) to discuss the origin and evolution of the game. Very few pieces of such antiquity have survived, although the game was widespread at that time. It originated in India, whence it came to Persia, and, after the conquest of Persia by the Arabs, to the western world, as its introduction into Europe was largely due to them, as they were fascinated by the game. By the tenth century, famous masters had arisen, and treatises on chess had been written, which have come down to us, to show its use in the study of strategy, and for making mathematical calculations. The evolution of the present names and forms of chessmen is described—the piece we call the "bishop" was originally an elephant, with two projections from the top to represent tusks, which resembled somewhat the bishops' mitre. The castle, or rook, was originally a chariot. The queen has not only changed name and character, but also sex—originally it was called by the Persians the Vizier or Counsellor. The other pieces were virtually the same as now, the king being known as the Shah. Thus in mediaeval Latin the game was called *ludus scachorum* or the game of Shahs, and from this word our word *chess* is derived. The terms "check" and "checkmate" come from the Persian *Shāh* and *Shāh māt* (the Shah is dead). During the centuries, too, the moves of the different pieces have changed, with the exception of that of the knight. The men from Nishapur are of ivory—one side is white, the other is stained green. There seem to be parts of a second set as well, as a rook and a queen were found which do not belong with the others. Besides ivory, teakwood is known

to have been used at this period, and in the Arab Museum in Cairo, there are chessmen of colored glass, dating probably in the tenth century. Sets of crystal chessmen of the same period have been preserved, as for example, the celebrated "Charlemagne" set of Osnabrück, which, from these examples from Nishapur, it is now possible to date definitely in the early ninth century, so that they may well have been, as the legend has it, a gift to Charlemagne from Haroun al Raschid. The forms are conventional and curiously unlike any living creature, to comply with the Moslem prohibition against representation of living creatures. No trace of a chessboard was found at Nishapur, and we are dependent solely upon literary and pictorial references for information on this subject. Chessboards appear to have sometimes been made of cloth or leather. As on the board of today, there were usually sixty-four squares, eight to a side, but reference is made to a board of a hundred squares, involving additional pieces, called "camels." A board of 12 x 12 was known in Spain in the thirteenth century, and oblong and circular boards are also mentioned. In early boards in Persia and Arabia, the squares were all of the same color. Chess was often frowned upon by rigid Moslems, as it was played for stakes, and when introduced into Europe it was also viewed with disapproval by ultra-rigid ecclesiastics for the same reason.

Thomas Jefferson and the Classics.—In *PAPS*, lxxxvii, 1943, pp. 222–233, there is a discussion of this subject by LOUIS B. WRIGHT. Thomas Jefferson, like the men of the Renaissance and many of his own Virginia planter contemporaries, valued the Greek and Latin Classics for their practical instruction toward intelligent living. It was not the devotion of a grammarian-specialist; rather it was part of a well-rounded education, and an amateur standing in a number of useful and ornamental arts. The backbone of education Jefferson believed to be classical literature, especially Latin, with emphasis upon history; but he also emphasized French (for its usefulness in advanced mathematics and science) and Spanish ("because the future destiny of the U.S.A. lies with the Latin nations to the South"). In planning the University of Virginia he retained the Classics for ethical, philosophical, and legal background, while he also insisted upon natural history, science, etc. For himself, he preferred Livy, Tacitus, and Cicero to the Greeks, though he disliked Cicero's oratorical style, having nothing but contempt for the windy speeches of politicians in general. His ethical views

were a fusion of the best he could extract from Epictetus, Epicurus, and Jesus. He was never much impressed by the concepts of Plato, even speaking of him with contempt. Upon him Jefferson blamed the contradictions in the character of Socrates as "the whimsies of Plato's own foggy brain." To "Platonizing Christians" he attributed the confusion and misinterpretation of the simple teachings of Jesus. "As we advance in life (said he) I suspect we are left at last with only Homer and Virgil, perhaps with Homer alone." But prose authors, historians and moralists, especially Tacitus, were his favorites; in the letters of Cicero, too, he found pointed lessons in politics for his own day. Authoritarianism, however, whether based on Aristotle or any other ancient, he vigorously opposed. Though but slightly interested in philology as such, he was much concerned over the problem of correct ancient pronunciation. His interest in the problems of his contemporary Greeks and their independence was largely Homeric; in fact he was in favor of re-establishing Classic Greek as their language! In brief, vitality, forward looking, alive, sharing in everyday life, characterized Jefferson's classicism; as the writer says, "for the early years of the Republic, the classics had not yet foundered on the arid shores of pedantry."

EGYPT

Egypt.—*Smithsonian Inst. War Background Studies* 11, 1943, is devoted to a study of this region by FRANK H. H. ROBERTS of the Bureau of American Ethnology (iv, pp. 68, 25 pls. map). The first part of the essay is devoted to a concise study of modern Egypt (pp. 1–22), giving a clear description of the nature of the country, its climate, fauna, flora and mineral resources (pp. 1–7), the racial types residing in the country today (pp. 7–11), games and amusements (pp. 11–13), education and social welfare (pp. 13–14), agriculture and industrial activity (pp. 14–18) and the government (pp. 18–22). The bulk of the study (pp. 22–54), dealing with Ancient Egypt, will be of particular interest to readers of this JOURNAL. In these closely-written pages, a terse but extremely competent historical sketch is given of the land of the Pharaohs, beautifully illustrated with numerous plates, showing different sites and monuments, with works of art in various museums, including the statue of Queen Hatshepsut in the Metropolitan Museum, and a group of mummy-cases in the National Museum in Washington. After an in-

roduction (pp. 22-24), sections are devoted to Predynastic Egypt (pp. 24-27) and the Protodynastic Epoch (pp. 27-29). The first chapter on the Dynastic Period is divided into sections on the Old Kingdom (pp. 29-31), the Middle Kingdom (p. 32), and the Hyksos (pp. 32-33). To the New Empire another chapter is devoted, divided into two sections dealing with the two great periods of this era (pp. 33-43). Then come sections on the Libyan Dynasty (pp. 43-45), the Ethiopian Dynasty (pp. 45-47), the Assyrian Conquest (pp. 47-48), and Restoration of Egyptian Rule (pp. 48-51). The later history of ancient Egypt is covered by sections on the Persians (pp. 51-52), Alexander the Great and the Ptolemies (pp. 52-53), and the Roman period (pp. 53-54). The subsequent history up to modern times is briefly taken up in sections on the Moslem Conquest (pp. 54-55), the Mamelukes (pp. 55-57), and Mohammed Ali (pp. 57-59). The essay ends with short chapters on Foreign Intervention in Egypt (pp. 59-62) and the Suez Canal (pp. 62-67). Finally, a short but carefully selected bibliography is given.

Eighteenth Dynasty Statuette.—AMBROSE LANSING publishes, in *B.M.A. n.s. i*, 1943, pp. 266-270 (5 figs.) a statuette recently acquired by the Metropolitan Museum. He points out that during the Eighteenth Dynasty there was a sharp break in the severe tradition of religious art, which is extremely well illustrated by this statuette. It is of an Egyptian lady of the late Eighteenth Dynasty, identified by an inscription on the base as a certain Teye (or possibly Suye). She was either chief lady of the harem, or in charge of it, deriving her name from the ruling queen, wife of Amenhotpe III. It was found in the Fayyûm about 1900, and had been previously published by Chassinat in 1901. The writer publishes other statuettes and sculptures of earlier dynasties to emphasize the differences in female dress between them and this new acquisition. Whereas the earlier ones wear traditional garments and headdress, this one is made as she actually appeared. A date of about 1385 B.C. is given.

Serapeum of Alexandria.—The *London Times* for September 2, 1943, reports from Alexandria that the site of the temple of Serapis, one of the only two temples to be dedicated to the goddess, has just been discovered. It states that beneath the foundations of Pompey's Pillar, ALAN ROWE has found gold, silver, bronze, glass, and clay plaques definitely proving for the first time the history of the shrine, and the great library, built

on this spot by Ptolemy III. A gold plaque bears the hieroglyphic inscription, "King of South and North, Ptolemy, built the house as well as the temple of Serapis." Other similar inscriptions are quoted. The excavations are still in progress. The *Times*, while emphasizing the importance of the discovery, takes occasion to point out certain obscurities in the despatch as received, but hopes that further details, which are eagerly awaited, will clear up certain doubtful points.

MESOPOTAMIA

Miniature Painting in Baghdād.—In *The Journal of the Walters Art Gallery* v, 1942, pp. 19-39, HUGO BUCHTHAL discusses the evidence for the existence of a "School of Baghdād" in miniature painting. We have only one illuminated manuscript which was assuredly written in Baghdād. The subscription of the *Hippiatrica* in the Egyptian Library, Cairo, states that the work was finished in the city of Baghdād in Ramadān, 605 A.H. (March, 1209 A.D.). Dr. Buchthal points out the many similarities in details and the recurring motives to be found in the Dioscorides miniatures. These in turn are linked to the illuminations of the famous Schefer Ḥariri manuscript (Bibliothèque Nationale, Paris, arabe 5847) which is "the most outstanding example of early Islamic miniature painting," and represents "the culmination of pictorial art in Baghdād under the last Abbāsid Caliphs."

PALESTINE

Maimonides.—In *The Journal of the Walters Art Gallery* v, 1942, pp. 124-127, ERWIN PANOFSKY adds a postscript to his exposée of the forger who turned a Hebrew prayer book into a manuscript by Maimonides with illustrations by Giotto (*loc. cit.* iv, 1941, pp. 27 ff.). He has discovered the source of the errors in the representation of the coat-of-arms.

AEGEAN

Recent Discoveries in Crete.—*The New Pallas* vii, 1943, p. 14, reports that near Asomatos, in the western part of the island, a Minoan palace, the existence of which had long been believed, is said to have been discovered and closely investigated. In a cave near Apecosari, earthen vessels and skeletal remains of the Late Stone Age have been found. In the Messarā plain, a settlement, probably to be associated with the tholos tombs found there, is said to have been identified.

GREECE

GENERAL AND MISCELLANEOUS

Classical Ladles and Strainers.—DOROTHY KENT HILL has written a short, but profusely illustrated, article on "Wine Ladles and Strainers from Ancient Times," in *The Journal of the Walters Art Gallery* v, 1942, pp. 41–55. She discusses the individual characteristics of the Greek, Etruscan and Roman types as seen in actual pieces and in representations in wall-paintings and on vases. These household articles of bronze and silver clearly demonstrate that the utilitarian need not lack beauty.

Sources of Early Greek Jewelry.—BERTA SEGALL contributes to *BMFA*, xli, 1943, pp. 42–46 (2 plates) an important paper on this subject. After the disappearance of the Minoan and Hellenic civilizations, due to the invasion of the Dorians, there is a break in culture which does not end till the second half of the eighth century B.C. At this time objects of luxury begin once more to appear in tombs. For the prototypes of these objects we must look abroad. About 700 B.C. the Greeks begin to make their own contributions to the jeweler's art. The earliest pieces were either imported, or made by foreign workmen in Phoenician trading posts in Greece. Through the Phoenicians, the writer proves, by a series of illustrations on two plates, that the Greeks availed themselves of, and adapted to their own use, patterns derived from Mesopotamia, the Caucasus, and above all, Egypt and Syria, whose influence is predominant.

Ancient Metal Reliefs.—DOROTHY KENT HILL analyzes the nature of ancient metal reliefs in *Hesperia* xii, 1943, pp. 97–114. Hammered relief was used throughout antiquity in Greece and Italy, but became uncommon in the great age of Greece; repoussé was discovered in the second half of the fifth century, and was in common use until the third century; cast low relief was in continuous use, but low and high hollow cast relief was used only in the Hellenistic and early Roman periods. Cast reliefs were made in imitation of hammered reliefs with the aid of matrices, which were also moulds, and from repoussé relief with the aid of clay impressions. Commercial duplication of utilitarian metal work was general.

Wesniza, Bulgaria.—*The New Pallas* vii, 1943, p. 42, reports that at this place there was recently found a copper arm, hammer-shaped, weighing 600 gr., probably dating in the Thracian period. It

was in an earthen vessel, together with human remains. This is the first find of the kind in this region.

ARCHITECTURE

The Stylobate of the Parthenon.—GORHAM P. STEVENS in *Hesperia* xii, 1943, pp. 135–143, considers the arguments presented by Professor Constantine Caratheodory in an article on the curve of the north stylobate of the Parthenon (*Εφ.* 1937, p. 120) to the effect that an investigation of the curve from a mathematical point of view would indicate that the curve was intended to be an arc of a circle of great radius. Professor Caratheodory makes use of recent measurements taken by the late Nicholas Balanos. Stevens, however, believes that Ictinus employed a parabola. Penrose in 1851 published careful measurements and studies of the Parthenon in *Principles of Athenian Architecture*, and expressed the belief that the curves of the stylobates approached more nearly parabolas than any other curves. He gave no proof of his belief. Stevens in 1934 showed in *AJA.* xxxviii, pp. 533–542, how the curve of the north stylobate might have been laid out by *scamilli impares*, a method which produces a parabolic curve. Vitruvius iii, iv, 5, states that the level of the stylobate must be increased along the middle by *scamilli impares*, a practice which was probably of long standing. Stevens undertakes to prove this fact by use of Balanos' measurements and the well-known theorem, the loci of the center points of all systems of parallel chords of a parabola are straight lines parallel to the axis of the parabola.

Klepsydra and Court of the Pythion.—ARTHUR W. PARSONS in *Hesperia* xii, 1943, pp. 191–207, discusses fully the recent excavations of the spring of Klepsydra and the Paved Court of the Pythion. The article not only gives an account of the excavations, but also gathers together and interprets all the relevant material, old and new. The study suggests "that Klepsydra was not merely a spring with its own nymph, but was actually the center of that cult of the nymphs, which existed on the northwest slope of the Acropolis." The article includes an examination of the Paved Court which lies beside Klepsydra, and gives reasons for thinking that this court was a part of the sanctuary of the Pythian Apollo, and probably served as a kind of place of preparation for the great religious procession to Delphi, the Pythais. Modern investigation of Klepsydra might be said

to have begun in 1822. Recent excavations of the area represent campaigns of the Staff of the Agora Excavations of the American School of Classical Studies at Athens from 1937 through 1940. The spring (πηγή), called early by the name of Empedo, received the name Klepsydra when the water was made readily accessible by the construction of the spring house (κρήνη) in the second quarter of the fifth century B.C. As early as the end of the Neolithic period the men of Athens began to use the water of Empedo, and from this time on the spring was almost constantly in use, with a few exceptions. Klepsydra and the Paved Court, as known today, are clearly parts of the building program initiated after the defeat of the Persians. The center of the design of the spring house is the rectangular drawbasin, sunk deep enough to reach the point of issue of the water which bubbles forth at the back of a natural cave nearly six meters below the surface of the ground at the entrance. The basin is enclosed on two sides by a platform flush with its margin, from which the water could be drawn over a railing. The platform itself was reached by a flight of eight steps which descended from the northwest corner of the building. The living rock formed the roof and most of the east wall; at the south, where the cleft continued under the rock, the spring house was closed by carrying the masonry up to meet the roof. It remained open, as in the cave, toward the west and presumably to the north. The west wall reached only to the level of the ground at the cave entrance. As the design of the spring house was the direct result of fitting it into the existing cave, so the peculiar shape of the Paved Court was also forced upon it by its situation, and it was entered from the west. It was controlled by the spring house and the line of cliff east of it, which gave the south wall of the Court its two awkward directions. The north wall was fixed by the Peripatos and at the northwest corner of the Court it met the street of the Panathenaia, which swung westward at this point and gave the western end of the Court its awkward shape. There is no direct evidence for a restoration of the walls of the Court, but they were probably carried up to the same height as the walls of Klepsydra, and like them, were crowned by a parapet with a coping. The masonry in both structures is of poros, fairly hard, ranging in color from pale grey to pale buff, and the workmanship is of high quality. Until the second century of our era there was no direct communication between the spring and the Acropolis,

though there is evidence that such a connection was planned by Kimon, who gave Klepsydra and the Paved Court their original form, but was not carried out. When the roof collapsed in the first century of our era, and made it impossible to reach the water of Klepsydra except from the North, the western end of the Court had to be thrown open to the public, but the whole eastern half of the Court was reserved, and its privacy insured by the building of a transverse wall. This fact, along with other evidence, indicates that the purpose of the Court was a religious one, though the Court was little used as a building. Parsons discusses likewise the records of various periods in the history of the spring and the Court to the end of antiquity, and in mediaeval and modern times. In Roman times, when it seemed wise to make the spring directly accessible from the Acropolis, after the collapse of the roof, no effort was made to preserve the old system. A vertical shaft was opened from above the fallen boulders that once formed the roof. Over it was built the apsidal well house of brick and concrete, which in mediaeval and modern times came to be used as a church. It was in 1826 that the Greeks enclosed Klepsydra in the great bastion of Odysseus.

SCULPTURE

Torso of Dionysos, Athens.—*The New Pallas* vii, 1943, p. 6, reports that German soldiers have discovered, in the village of Dionysos, the ancient Icaria, on the northern slope of Pentelicon, the torso of a big statue of Dionysos, from the ruins of the temple of that god. It has been placed in the National Museum where fragments from the same statue have already been deposited. It belongs, in all probability, to the end of the sixth century B.C.

Cyriacus of Ancona in Samothrace.—Cyriacus' visit to Samothrace, reported in his letters, his copies of inscriptions seen there, and his drawings of monuments made on the island are a more spectacular document of early Renaissance antiquarianism than are his records of most of the other sites he visited. He is devoted to the exact recording of facts, but at the same time he relates his finds to the ideas and interests of his own age concerning the ancient world, and he adds inscriptions interpreting the monuments in his own way. This attitude is clearly reflected in his drawings of an archaistic frieze, now in the Louvre, and of a Samothracian stele with a relief of a round building and its inscriptions, which is reproduced

with the utmost care. Another of Cyriacus' drawings is of great importance for Samothracian antiquities and religion. The new copy of Cyriacus' notebook, now in the possession of Bernard Ashmole, published by Saxl, contains a drawing of a bearded, dignified male head, wrapped in a cloak and explained by an inscription in Greek capital letters as a portrait of Aristotle. Cyriacus' pseudo-antique inscription established the head for many centuries as the portrait of the great philosopher. This head KARL LEHMANN-HARTLEBEN in *Hesperia* xii, 1943, pp. 115-134, traces to a marble bust of a bearded man with hair held by a taenia, found on Samothrace in 1939, and dated about 460 B.C. It is part of a group of architectural sculptures, of Thasian marble, presumably a pedimental group, to which another somewhat larger female figure, found at about the same time, belongs. The eyes of the head, though later reworked, were closed as in the ancient convention for the representation of blindness, and thus indicate that the bust is really that of Teiresias coming from the underworld. At the base of the bust and Cyriacus' drawing of the head is a projecting band of stone used for the purpose of insertion in the ground. The whole undoubtedly represented in Hartleben's opinion the Nekyia, in which Teiresias emerged from the ground at one side as a bust, near Odysseus and his companions. The female figure, possibly representing a goddess, was nearer the center. The other half of the pediment must have been filled with additional figures of the underworld. The occurrence of an underworld scene as a major sculptural decoration about the middle of the fifth century B.C., associated with the famous Nekyia of Polygnotus of Thasos painted at Delphi, in a Samothracian sanctuary, is perhaps the first tangible indication that the Samothracian chthonic cult, as at Eleusis, included some hope of a happy after-life. Closely connected with the treatment of this subject in the Polygnotan tradition of underworld painting is the Tomba dell' Orco, where we find Hades and Persephone in a cave, surrounded by the vapors of the lower world, while an enormous snake coils up behind the throne of Hades. On another wall is a quiet procession of heroes, Agamemnon, the shade of Teiresias, one of the Aiantes. The presence of the snakes in an admittedly underworld scene offers a clue to the interpretation of another Samothracian monument, the famous archaic relief in the Louvre, which is surely part of a lower world picture, too. Here

Agamemnon is seated, Talthybios and Epeios stand behind, while a monstrous snake coils up the right end of the relief. Thus Cyriacus' drawing of a so-called portrait of Aristotle has revealed the correct interpretation of an ancient monument as part of the Nekyia of Odysseus, and has thrown new light on the beliefs of this ancient mystery cult at Samothrace.

Ravenna.—At Porto Corsini, near this place, a marble herm of a bearded man was washed up by the sea. On comparison with other known sculpture, it proves to be a bust of the philosopher Carneades (*The New Pallas* vii, 1943, p. 21).

The Laocöon group.—Definite proof has been established in the laboratories of the Vatican, that the right arm, found by Pollak in 1905, belongs to the Laocöon group. The slight deviation of the fragment, on which the opponents of its connection with the statue have hitherto relied, can be explained by the alterations that have taken place in the course of time. This is reported by *The New Pallas* vii, 1943, p. 19, which adds that a model of the group with the Pollak arm attached, has been made by Professor Vergasa, which is entirely convincing.

Herculaneum.—A late Hellenistic marble statuette of Eros, without wings, playing the zither (?) has been found here. Head and back are quite intact (*The New Pallas* vii, 1943, p. 10).

VASES

Taranto.—*The New Pallas* vii, 1943, pp. 19-20, reports that at this place a sepulchral "temple" was found, containing two fine Attic black-figured lekythoi, while in another tomb a very beautiful Attic white lekythos, decorated with a seated woman in polychrome design, was discovered.

INSCRIPTIONS

New Arcadian Inscription.—In *CP.* xxxviii, 1943, pp. 191-199 (pl.), DAVID M. ROBINSON publishes, with translation and a very full commentary, an inscription recently acquired by him. It is on a bronze tablet, said to have come from Kalavryta, but its provenance is probably Kleitor. Similar tablets have been discovered by the Austrian excavators of Lousoi, near Kleitor. They were attached to pieces of wood, and hung in shrines or temples. The inscription is in the Arcadian dialect, and presents many new words and forms. It is dated in the sixth century, or perhaps the early fifth, is one of the earliest, if not the very earliest, to mention the cult of Demeter Thes-

mophoros, and is the only Arcadian inscription so far known, to have this epithet. It requires women to consecrate to Demeter, on pain of death, hide garments of Deraea. At the end of the commentary, a list is given of characteristic Arcadian dialect forms appearing in the inscription, as well as a brief discussion of the forms of the letters.

The Lawgiving of Demetrios.—Since the publication of Ferguson's chapter on Demetrios of Phaleron in *Hellenistic Athens*, the number of extant inscriptions bearing on the date of Demetrios' code has doubled, and the new texts confirm Ferguson's observations and date 315/14 B.C. The code of Demetrios, according to Ferguson, "was based particularly on the investigations of his teacher," e.g. Theophrastos. STERLING DOW and ALBERT H. TRAVIS in *Hesperia* xii, 1943, pp. 144–165, consider the evidence offered by the Eleusis base, *IG*. ii², 2971, which does not establish what office or offices Demetrios held either in 317/16 or 316/15, and which gives no proof one way or the other that his title may have been στρατηγός. They consider next the decree of Aixone in honor of Demetrios, *IG*. ii², 1201, which requires a restoration of his title in line 11. No one of four earlier restorations Ἐπιμελήτης, Προστάτης, Ἐπιστάτης, Στρατηγός is satisfactory because none connotes lawgiving. Equally unsatisfactory are the possible Θεσμοθέτης and Ἀναγραφεύς which the authors consider. But a restoration not hitherto advocated, namely Νομοθέτης fulfills the requirements of the decree. There is no reasonable doubt that Demetrios interpreted his masters in philosophy to mean that one of the first duties of a philosopher upon securing power was to become a νομοθέτης. The fact that he was the sole holder of this position and the whole process was different would distinguish him from the large democratic boards of νομοθέται. When Ferguson undertook to establish the date of Demetrios' code by means of dated boundary stones, there were twelve such boundary stones to consider. Now there are twenty-two. Dow and Travis point out from an examination of these ὅροι, that Ferguson's main conclusions are even more securely established. Those sections of Demetrios' code which applied to mortgages went into effect in 315/14, and so were promulgated in 316/15, probably well before the end of the year, so that knowledge of them could be spread in time for them to go into force on Hekatombaion 1 of 315/14.

NUMISMATICS

Athens.—*The New Pallas* vi, 1942, pp. 103–104, reports that the Vingas collection, containing, among other items, some seventy gold coins, had been stolen, but that the thieves had been apprehended, and about one-half of the collection recovered. The total value of the collection was assessed at a million drachmae.

Coins of Mitylene.—*The New Pallas* vii, 1943, p. 6, reports that seven gold coins, found in Mitylene, representing Herakles and one of his sons, and dating in the period of 630–611 B.C., have been turned over to the Museum in Athens.

ROME

GENERAL AND MISCELLANEOUS

Care of Art Objects in Sicily.—*The London Times* of October 22, 1943, publishes a dispatch from Algiers under date of the previous day, summarizing a report of the Advisor of Fine Arts in Sicily, attached to the A.M.G., and outlining the policy in the care and preservation of monuments. The temples at Syracuse, Agrigento, Selinus, and Segesta escaped unscathed, and the Norman churches at Palermo and Monreale and the Cathedral at Cefalù are unharmed. More damage is reported among the numerous baroque monuments of Sicily, and some libraries and archives were badly hit. Everything possible is being done to protect the contents and interiors of these buildings from damage by rain or theft. The Italian museum and library officials are being retained wherever possible, and the Allied troops have uniformly respected monuments and works of art. All in all, "the damage done in Sicily does not appear so extensive, after a careful survey, as a first glance suggested."

The Naples Museum.—*The New York Herald-Tribune* for October 8, 1943, publishes an interview with AMEDEO MAIURI, Director of the National Museum at Naples, and archaeologist in charge of the excavations at Pompeii. In it he said that the Museum is unscathed, except for broken windows, and that the collections that could be moved had been stored in a "secret and sacred" place, where he believed that they had escaped the hands of the Germans. The worst destruction occurred at Pompeii, where, in attempting to protect the excavated area, he suffered a broken leg from a bomb fragment. At the time of the interview he was still confined to his bed, and was lying on a cot in the Museum, where he had insisted on

being taken three days before the Allied entry into Naples. The heavier sculpture in the Museum is still in place, protected by sandbags and wooden scaffolds.

Rome.—During work in the Piazza Sonnino in Trastevere, remains of a private building with mural paintings in the Pompeian manner were discovered beneath the foundations of the tower of San Crisogono. It dates in the first or second century A.D. (*The New Pallas* vii, 1943, p. 14).

Rome.—*The New Pallas* vii, 1943, p. 40, reports that after fourteen years of labor, the architectural transformation of the Capitoline Hill has been completed. The houses situated on the slopes were removed, first from the Tarpeian Rock, and finally from the south foot, and on their site gardens have been laid out, most of them commanding splendid views. The continuation of the Via Sacra leading from the Forum by the Temple of Saturn to the Capitol, discovered in 1940, has been laid bare.

Rome.—In the Museo dell'Impero, COLINI reported on researches of the Temple of Vediovis discovered under the west corner of the Senators' Palace on the Capitoline Hill in 1939. The excavated building is not, as was first believed, older than the Tabularium surrounding it on two sides, but dates from the same time, that is from about 78 B.C. Underneath the temple, however, have been found remains of two earlier phases, the first of which may date from the time about 196 B.C., according to an indication of Livy.—According to a report given by BRUNO APOLLONI-GHETTI at the same place, an inscription discovered on the Mausoleum of C. Popilius Heraclea proves that the Vatican Circus was at the place where St. Peter's is now (*The New Pallas*, vii, 1943, p. 51).

Palestrina.—According to *The New Pallas* vi, 1942, p. 101, the Superintendence of the Antiquities of Latium is instituting steps toward the preservation of the remains of the Temple of Fortuna, on whose ruins the present town was erected.

Bergamo.—*The New Pallas* vi, 1942, p. 107, reports that as a result of the recent demolition of the Teatro di San Cassiano in the upper city, remains of ancient buildings were found, which probably formed part of the Forum Civile. They may date from the early Imperial period, and parts of them were doubtless used in the construction of the small mediaeval church of San Cassiano, on the site of which the theatre was erected.

Taranto.—During building work executed in the eastern part of the city, Roman tombs and

remains of walls of the late period of Roman civilization have been uncovered. A brick kiln was also found, showing the same construction as is still usual in the neighborhood (*The New Pallas* vii, 1943, p. 1). In another part of the city, mosaic pavements with geometrical motives in black and white, obviously belonging to a Roman house, have been laid bare (*ibid.* pp. 19–20).

Risano, Dalmatia.—*The New Pallas* vi, 1942, p. 91, states that at this place, the center of the ancient town of Risinium, together with a large Roman house, have been laid bare.

Alcudia, Mallorca.—*The New Pallas* vi, 1942, p. 105, reports on excavations carried out at this site by RAFAEL ISASSI and JUAN LIABRES. They yielded a large find of valuable Roman glass in an excellent state of preservation, as well as terracotta vessels, gold and ivory ornaments and a large number of coins. These date from different periods of the Empire, and also include examples of the Arabic, Mediaeval and Spanish periods. In the ruins of a building a mosaic, apparently of Byzantine origin, decorated with a red cross, was also found.

Valkenburg, South Holland.—According to *The New Pallas* (vii, 1943, p. 37) the investigations carried out during the last two years by A. E. VAN GIFFEN have been completed. They have fixed the fundamental parts of a Roman fortress dating from about 180 A.D., and have also laid bare remains of several earlier Roman fortifications, built, not of stone, but of wood and clods of earth, the oldest of which may date from about 40 A.D. Van Giffen believes that the early structure is the fortress Praetorium Agrippinae.

Silistra, Bulgaria.—In the outer quarter of this town, the Roman Durostorum, a burial-place dating from the beginning of the fourth century A.D. has been discovered, which may well be the richest find of this kind in this territory. Walls and vaults are decorated with paintings in four colors, representing human figures, animals, plants, fruits, etc., within sixty-three chambers (*The New Pallas* vii, 1943, p. 19).

ARCHITECTURE

Rome.—*The New Pallas* vii, 1943, pp. 25–26, reports that excavations recently carried on in the Basilica Aemilia, north of the Forum, have determined the ground plan, extent, and form of the building, so that a restoration, at least of the main parts, will be possible. The Basilica, a very grandiose building, was erected in 179 B.C., and is the

earliest building of its kind to come down to us. It was renovated between 78 B.C. and 22 A.D., was destroyed by fire by Alaric in 410 A.D., and has never been restored. Numerous inscriptions, sculptures, coins, and utensils have been found, in particular fragments of a frieze, the reconstruction of which has been undertaken by Senator ALFONSO BARTOLI. The relief, about 70 cm. high, represents events of Roman history, especially the Rape of the Sabine Women, and the Punishment of Tarpeia.

Chieti.—*The New Pallas* vi, 1942, p. 97, announces that the excavation of the Roman theatre at this place, begun in 1940, has been completed, and the remains uncovered have been consolidated. It was especially beautifully situated, had a diameter of about 80 m. (?) and held more than three thousand spectators.

Herculaneum.—*The New Pallas* vi, 1942, p. 97, reports the discovery at Herculaneum of the ruins of a bath, with artistically painted walls, in a very good state of preservation. The building had a pavement richly decorated with polychrome marble, and a most beautiful portico.

SCULPTURE

Rome.—*The New Pallas* vii, 1943, reports on recent discoveries of sculpture in Rome. Between Via Panisperna and Via Mazzarino, 8 m. below the pavement, a headless statue of Aphrodite, probably a Roman copy of the time of Hadrian, has been found, and deposited in the Museo Nazionale (p. 10). Near the temple of Venus Genetrix, an excellent portrait bust of an elderly man, dating from the time of Julius Caesar, has been excavated. The find is especially important because little of the decoration of the Forum of Caesar has come down to us (p. 14). During the restoration of the so-called Casa di Rienzi, G. Q. GIGLIOLI discovered a fragment of a relief showing Bacchic scenes, which formed part of a relief which decorated a loggia of the Villa Medici from the end of the seventeenth century. It is of Graeco-Roman work, and dates in the period of Julius Caesar (p. 19). In *ibid.* p. 46, announcement is made that the equestrian statue of Marcus Aurelius on the Capitol Square has been put in a safe place. The statue, as well as its base, which has already been several times restored previously, needs further restoration.

Ostia.—Near the harbor an almost intact statue of the late Imperial period has been excavated. It is believed to have been set up in honor of Quintus

Aurelius Symmachus Eusebius, prosaist and defender of ancient Roman civilization against Christianity (*The New Pallas* vi, 1942, p. 99). There has also been found a fragment of a relief representing the saving of the Capitol. It shows three cackling geese by the side of a temple (*ibid.* vii, 1943, p. 31).

NUMISMATICS

Oberriet, Canton of St. Gall.—*The New Pallas* vii, 1943, p. 17, makes the announcement that in the autumn of 1941 a most remarkable find of coins was brought to light north of this place, the main part of which is now in the Historical Museum of St. Gall. It consisted of 1089 Roman coins, most of which date from the middle of the third century, and show portraits of the emperors Gordianus, Philip, and Gallienus. The latest coins are to be dated in the year 270. They had been hidden in the ground in a vase of terra sigillata, decorated with birds and tendrils of flowers.

ROMAN GAUL

Trèves.—Finds made in the ground north of the amphitheatre seem to indicate that the Roman circus, which was hitherto believed to have been in the temple district of the Altbach valley, was situated in the present quarter of Gartenfeld. *The New Pallas* vii, 1943, pp. 6-7, in reporting this discovery, also reports that remains of a Roman hall, 10.60 by 7.20 m. in dimensions, has been laid bare. This ruin had mosaic walls, covered with Romanesque mural paintings.

Hettenhausen, Hesse-Nassau.—*The New Pallas* vii, 1943, p. 35, reports the discovery of a Roman necropolis near this place. The tombs contain numerous urns, pots, and other ceramics, many of which are in perfect condition. One tomb was found quite intact with all of its offerings.

Cologne.—During the deepening of a large air raid shelter, an extraordinarily beautiful and well preserved Roman mosaic, measuring 7 x 10 m., and representing the myth of Dionysos, has been discovered (*The New Pallas* vii, 1943, p. 51).

ROMAN BRITAIN

London.—*The New Pallas* vii, 1943, p. 1, gives the news that clearing up work after the air battles over the city has laid bare parts of the Roman rampart hitherto unknown, with the result that its traces can now be fixed far more accurately. Care has been taken to preserve all the Roman remains intact as far as possible.

EARLY CHRISTIAN AND BYZANTINE

Rome.—*The New Pallas* vii, 1943, p. 26, announces the commencement of restoration work on the church of SS. Nereo ed Achilleo, near the Baths of Caracalla. It is a structure of great antiquity, but the exact date of its erection is unknown. The restoration has, however, brought to light steps of travertine, indicating the existence of a still older building.

Pola.—*The New Pallas* vi, 1942, p. 99, reports that during digging in the forest of Contrade near this place, remains were discovered of an early Christian basilica. It obviously belonged to a group of sanctuaries already discovered, which were erected in the place of a pagan cult. The basement of the altar, an altar column, and parts of the crypt had been excavated up to the time of the report.

Pecs, Fünfkirchen, Hungary.—*The New Pallas* vii, 1943, p. 40, reports that during 1942 two early Christian tomb-chambers and five tombs were uncovered at this place. Excavations are still going on under the direction of JULIUS TÖRÖK, director of the Municipal Museum. To date another tomb, dating in the fourth century, has been discovered, which, however, had been pillaged.

Dumbarton Oaks Program.—The steps thus far taken toward making Dumbarton Oaks a center of research in Byzantine Art are reported by WILHELM KOEHLER in *Speculum* xviii, 1943, pp. 118–123. By admitting only students with a record of some years of graduate work, by freeing them from any burden of teaching, and by having them live and work on the premises, the first academic year was inaugurated in the autumn of 1941 with the decision to concentrate all efforts on the problem of the formation and development of Early Byzantine Art. Two collateral and interdependent projects were undertaken simultaneously, the one devoted to the written sources, the other to the monuments of the period. As regards method, it was seen that the co-ordination of the diverse and geographically widespread material in the field demanded monographic investigation of certain regional groups of monuments; further, that the study of such groups could be carried out successfully only by relating them constantly to the total material. Since the study of local developments in each region is not too big a task for an individual, one region was assigned to each Fellow. At regular meetings of the research group, each member reports at intervals on the progress of his work,

and this close contact enables him to relate his own material to that of all the other regions. Since, however, the material is too complex and knowledge of the main trends in the artistic development too fragmentary—at least at the beginning of the project—to allow for concentration on definite problems, it also seemed desirable to make the survey and study of the monuments permanent. From this consideration grew the idea of the Research Archives, which represent a sediment of the labors of the individual Fellows. Hence the research program of Dumbarton Oaks implies that individual efforts of a group of scholars are directed towards a common goal of broad historical scope; the clarification of the origins and of the development of Early Byzantine Art.

The Christian Basilica at Corinth.—JOSEPH M. SHELLEY in *Hesperia* xii, 1943, pp. 166–189, describes the remains of a large and well-built basilica dating from early Christian times, discovered near the Cenchrean Gate at Corinth in 1928. The original church was a three-aisled Hellenistic basilica of conventional type, 63.20 m. long, including apse and narthex, and 23.30 m. wide. Features of the church are four tomb chambers and an imposing triconch funerary chapel off the south aisle. The church may be dated in the fifth century after Christ. The construction of the church conforms to the late Roman and early Christian method, and was repaired at some time, as the apse floor was roughly relaid, and the Holy Table underwent a change. At a much later period, when the building had been long neglected and the narthex destroyed, a new narthex was created by a wall spanning the nave, and a flooring of coarse greenish-buff tiles, set in clay, was laid at a slightly higher level, while the seats and throne in the apse, originally decorated with marble revetments, received a coat of stucco. In its latest stage the building was curtailed to the easternmost portion. The church then had a floor covered with stone and marble slabs gathered from various sources. The first church was probably destroyed or left to decay at the time of the Avar occupation, remodelled and repaired in the tenth century, but toward the end of the century suffered from a disastrous fire. In the eleventh century the eastern end was utilized as a nucleus for a small, well-constructed church. About the middle of the thirteenth century a second fire, probably connected with the wars and raids subsequent to the fourth crusade, caused the destruction of its third phase.

The Walls of Constantinople.—The Turkish Government is already making plans to celebrate the fifth centenary, in 1953, of the capture of the city by them. Among other things the plans call for a restoration of the walls between the Golden Horn and the Sea of Marmora and the walls along the water. If this plan, however, should not be practicable, it has been decided to free the ruins of the ancient walls from the old houses adjoining them, in order to have the city make a more favorable impression on visitors entering from the land (*The New Pallas* vii, 1943, p. 7).

New Museum in Milan.—In the porch of the Church of San Lorenzo an archaeological museum has been arranged, containing a collection of capitals, sculptures, mosaics, amphorae, etc., which is the result of excavations and of the restorations executed in the church since 1936, and is devoted not only to the history of the church but to that of the whole quarter. Prof. Stoppani, the incumbent of the church, is also the keeper of the museum. A catalogue has been drawn up by Dr. Alberto DeCapitani, who, with the assistance of Prof. Chierici, Superintendent of Antiquities of Lombardy, did the preliminary work for the museum. Chierici, DeCapitani, and Calderini are preparing a detailed report on the work, for which Cardinal Schuster will write the preface (*The New Pallas* vii, 1943, p. 7).

MEDIAEVAL

Kraakeroy Island, Norway.—*The New Pallas* vii, 1943, p. 51, reports the discovery, on a rock plateau, difficult of access, of the remains of a Viking village, dating in the fifth or the sixth century, and occupying a space of 70 m. in breadth and 230 m. in length.

Anderberg, Lower Styria.—*The New Pallas* vii, 1943, p. 42, announces the discovery at this place of a Gothic settlement, consisting of six houses, and also containing a forge and a bath. One of the houses, built of quarry stones bound with mortar, measures 33 x 12.5 m. The finds include potsherds of typical Germanic ware, and a coin which has a view of sixth century Ravenna.

Saetta di Galeata, Province of Forlì.—Excavations carried out by the German Archaeological Institute in Rome, in collaboration with the Soprintendenza dell' Antichità of Bologna, have confirmed the tradition that there was a palace of Theodoric the Great at this place. Ruins of a large Roman villa of the late period have been found, showing certain peculiarities from which it

may be deduced that it could have been the residence of a Gothic king. The capitals of the columns are characteristic of the beginning of the sixth century; moreover, remains of a form of pottery rare in Italy, but typical of the period of East Gothic rule, have been discovered. The ground plan could be uncontestedly determined. The villa seems to have been a summer residence of Theodoric in the Bidente valley, and served as a hunting seat (*The New Pallas* vi, 1942, p. 95).

Szeged.—Tombs of the periods of the Avars and Gepidi have been excavated here, and their rich contents placed in the Municipal Museum (*The New Pallas* vii, 1943, p. 19).

Charlemagne's Silver Celestial Table.—In *Speculum* xviii, 1943, pp. 112–117, F. N. ESTEY attempts an imaginative reconstruction of one of the three silver tables mentioned in Eginhard's *Vita Karoli Magni* as belonging to Charlemagne. To judge from Eginhard's account, the table in question—the most beautiful of the three—bore three circles containing a description of the whole world done with detail in small scale. From another allusion, in Thegan's *Vita Hludowici*, we may conclude that the table was round, "as though three shields were made one." A third source, the *Annales Bertiniani*, leads to the conclusion that the table was in the general tradition of the late antique celestial and terrestrial maps, with each of the three concentric circles containing a proportionate part of the description of the universe and with each representing the stars, planets, etc., in personified form, as was usual in such astronomical maps. In general, therefore, we have a picture of a round, solid silver table upon which, in the circles, are personified by figures in relief the various celestial bodies.

The image of such a table becomes clearer when the contemporary manuscript rendering of celestial maps is noted. The author then proceeds to a study of these monuments and classifies them in two groups. The first comprises three specimens—the Farnese Globe, the dome fresco of Qusayr Amra, and the celestial map from *Vaticanus gr. 1087*—all of which were attempts to portray the celestial heavens scientifically. The second group includes four examples, far simpler and more conventional—the planisphere of Bianchini, the round miniature of the ninth century Ptolemy table (*Vat. gr. 1291*), the twelfth century floor mosaic in the cathedral of Aosta, and the twelfth century cosmographical table of St. Hildegard's *Liber Scivias*—which display the fundamental

motif of the second celestial map tradition. Basic to each example is the pattern of concentric circles, usually four or five, and in each of these are personified the heavenly bodies. In the light of this early mediaeval mode of cosmographical representation, Charlemagne's celestial table would be something akin to the miniature of the Ptolemy table and to that of the *Liber Scivias*, with the difference that it would show three rather than four circles. In conclusion the author presents a diagrammatic reconstruction of the silver table, the figures of its three concentric zones borrowed from manuscripts which have been copied from Carolingian prototypes, and which seem reasonably safe representations of the originals, in iconography if not in style.

Rome.—*The New Pallas* vii, 1943, p. 19, reports that G. Q. GIGLIOLI has begun restoration of the so-called Casa di Rienzi, the earliest mediaeval private house in Rome. It is built of brick, and antique fragments are employed in its construction.

Sursee, Canton of Lucerne.—*The New Pallas* vii, 1943, p. 17, announces that it was planned to resume excavations at this point during the summer of 1942 (see *AJA*, xlvii, 1943, p. 483). The foundations, which were hitherto generally considered as remains of an eleventh century church, are now believed to date from earlier Christian times, and to form part of a church of Irish monks. The ground plan is quite unique in Switzerland, and has parallels only in France. It is proposed to build a museum at Sursee to house the numerous objects found in this campaign.

Kolin, Bohemia.—*The New Pallas* vii, 1943, p. 35, reports that at this place a double tomb, containing the corpses of a man and a woman, has been discovered, with remains of rich attire and precious ornaments, as well as numerous offerings. It dates in the beginning of the tenth century, and was the grave of a noble, or even princely couple.

The Revenge of Wayland.—Since the left-hand scene on the front of the Franks Casket in the British Museum showing Wayland in his smithy has never been satisfactorily explained in all its details, a more complete interpretation is offered by PHILIP W. SOUERS in *Speculum* xviii, 1943, pp. 104–111. Earlier scholars looked upon it as not much more than an illustration of the story as given in the literary sources, whereas Souers attempts to uncover the narrative implicit in the picture and bring it into relation with the recorded legend. He concludes that the scenes in question

might well be entitled the *Revenge of Wayland* since all other elements of the story are omitted, and he discerns three episodes which center upon this theme. In the first, the *Smithy Scene*, Wayland stands before his anvil, grasping in his left hand a pair of tongs with which he holds the head of one of the King's sons, and reaching forth in his right hand a cup of drugged beer to Beaduhild, who stands opposite him. Below the anvil is the headless body of the Prince and above it are ornamental objects—perhaps two hammers, a round-backed saw, etc. The scene represents the two acts of Wayland's revenge: the murder of King Niohad's sons and the rape of King Niohad's daughter. To the right of this scene is the figure of Beaduhild, carrying a bottle, which the author believes contains the beer that Wayland used in accomplishing the rape, and to the right of her is the figure of one of the King's sons catching birds, out of the feathers of which Wayland is to make the wings for his escape. These two figures, he thinks, are linked to the *Smithy Scene* by a motif now dropped from the legend but suggested here and in the *Volundarkvida*, i.e., that Wayland made his victims unwitting accessories to his revenge.

Guillaume d'Orange and Ysoré.—ROGER SHERMAN LOOMIS, in *GBA*, ser. vi, xxiii, 1943, pp. 311–317 (6 figs.), calls attention to a street in Paris named Rue de la Tombe Issoire, and gives the origin of its name. It derives from a legendary king of Coimbra in Portugal, named Ysoré or Isoré, who, according to the story, laid siege to Paris in the tenth century. (There is an authentic siege of Paris by the Germans in 978, with which this story may be identified). A champion named Guillaume d'Orange (from the town of that name in Provence), who had embraced the monastic life, took up arms again, and slew Ysoré in single combat. Ysoré was buried where he fell, according to the legend, and his tomb is inscribed in the Paris catacombs, at the point where the Rue Dareau crosses the Rue de la Tombe Issoire. The first mention of the tomb occurs in a chronicle of 1214. This episode figured in mediaeval art, and notably in a painted chamber in the Tour Fer-rande at Pernes, about fifteen miles southeast of Orange, which can be dated on other evidence between 1266 and 1274. The figures are identified by inscriptions, although Ysoré is only called "giant." The manner of depicting the combat is the conventional one of a Christian knight fighting a Saracen, the earliest example of which appears

to have been a stained glass roundel, formerly at St. Denis, destroyed during the French Revolution, which showed a single combat at the siege of Antioch. Other similar works are a relief at Estella in Navarre, showing the fight between Roland and Ferracutus (both identified by inscriptions) and dating in the twelfth century, and, in England, illuminated miniatures in the Louterell Psalter, and Queen Mary's Psalter, showing the combat between Richard Coeur de Lion and Saladin, follow the same scheme.

Piracy in the Baltic, 1375-1398.—An article under this title by DAVID K. BJORK in *Speculum* xviii, 1943, pp. 39-68, presents an interesting study of the involved political intrigues by which both Denmark and Mecklenburg in the last quarter of the fourteenth century instigated piratical activities and profited by them. Its aim is to show how the entangled political affairs of the Baltic world, chiefly the result of Margaret of Denmark's plans for a united Scandinavian North, provoked piracy; and how, once it was provoked, it was difficult to control, so that arbitration and united action by the powers concerned were necessary to abate the menace and restore peace and prosperity in the affected region.

Although Valdemar Atterdag's great ambition to build a Danish-Baltic empire had been thwarted by the Cologne Confederation in the war of 1368-69, after his death his youngest daughter Margaret threw herself into the intrigue and by clever manipulation not only succeeded in having her son, Olaf, elected king of Denmark but also in inducing the Hansa to approve the election. Then Margaret, as regent for her five-year-old son, embarked upon a daring program containing three important policies. The first was Denmark for the Danes; the second, Danish equality with the Hansa in Baltic trade, which had Skane for its key; and third, Danish hegemony over Sweden. All these activities were closely interwoven with piracy. As a result of clever manoeuvring on Margaret's part, her first end was attained upon the death of Albert, Duke of Mecklenburg, in 1379. Meanwhile the merchants of the German Hansa began to complain loudly of piracy. Although the pirates have generally been considered the partisans of Duke Albert, it seems clear that the Danes were implicated in this piracy before the death of Albert as well as thereafter. Piracy was a good weapon by which to force the issue of the return of the Skane castles to Denmark by the Hansa, since the latter was obliged to patrol the

sea at enormous cost, met by heavy assessments on all towns; and added to this were the immense losses in ships and goods because of piracy. Numerous meetings were held between Margaret and the Hansa representatives to consider the question of the return of Skane, her demands being met with requests for compensation and the renewal of privileges in Norway; if she would accede to these requests, the Hansa would favor the return of the castles. She made no commitments, however, and in 1385, at the time stipulated for the return of the castles, came to Skane with a large following, took formal possession of the province, had her son approved as regent, and notified the Hansa of her action. As a result of these events piracy gradually died out, trade again prospered, and Margaret saw her second policy come to fruition.

But this peace was soon disturbed as Margaret made plans to conquer Sweden. With Albert, the weakling second son of the Duke of Mecklenburg on the throne, the country faced financial ruin, disorder and civil war, and in this war the Swedish nobility offered the crown to Margaret. She invaded Sweden, fought a decisive battle at Falköping in 1389 and captured Albert, who languished as a prisoner at Lindholm castle in Skane. Albert, however, was not without friends. His cousin, Duke Johan of Mecklenburg, seized Stockholm and made agreements with the nobility and the trading towns in Mecklenburg to war on Margaret until Albert was set free. Wismar and Rostock, the most important Hansa towns in Mecklenburg, announced that they would equip war vessels and issue letters of marque to freebooters. The trade of the Baltic suffered terribly in consequence and numerous complaints were directed against the two towns, which, however, paid no attention to the League's threat to "unhanse" them. So the Hansa equipped large fleets for action against the pirates. Piracy nevertheless took on tremendous proportions and Margaret herself now felt its dreadful results fully as much as the Hansa. Therefore she shortly offered terms of peace to Mecklenburg, which were agreed upon in 1395 by all parties—the peace to go into effect immediately, so that the Baltic should be free from pirates by July 25. But this was easier said than done. Although piracy had been officially outlawed and peace had returned once more to the Baltic, freebooting had become so profitable that the mere withdrawal of official sanction did not prove a serious handicap, and the pirates con-

tinued their activities with Gotland as headquarters and Albert's son, Duke Eric, as pirate chief. They even thought they could molest the Grand Master of Prussia with impunity, but here they met formidable opposition. The Grand Master equipped a large fleet and sailed for Gotland in 1398. He captured Landskrona and laid his fleet before Visby where he forced the pirates to strike their flag. The island was formally turned over to the Grand Master and the pirate castles burned, thus marking the end of the second period of piracy in the Baltic.

Gothic Alabaster Annunciation.—In *BMFA*, xli, 1943, pp. 11–19 (6 figs.) GEORG SWARZENSKI publishes a relief of the Annunciation, recently acquired by the Museum of Fine Arts in Boston, formerly in the Benario collection in Berlin, and before that in the convent in Neidingen, in the upper Rhine valley. Of the mediaeval sculpture in alabaster, the school of Nottingham is the best known; the work done in continental Europe is rarer, and has not been so carefully studied. The relief in Boston is realistically rendered; the figures in the main group are almost in the round. Polychrome, particularly gold, was used for essential parts of the relief, some of which is still preserved. A date in the second quarter of the fifteenth century is indicated. The alabaster work on the continent falls into several different schools, of which two are of supreme importance. One is of Flanders and the Lower Rhine, in which Italian influence is seen. The other, to which this relief belongs, originated in the Upper Rhine and Alsace, in which the influence of French Burgundy is noticeable. A number of reliefs and sculptures can be definitely grouped together as by the same hand as the Boston example. This includes statuettes of the standing Madonna, of unknown provenance, in Munich and Budapest, reliefs of Christ's Agony in the Garden in Fribourg-Baden, Sigmaringen, and Zürich, a Christ-Child in alabaster and steatite in the Villingen Museum, and, closer yet to the Boston relief, a Nativity in Berlin, which appears to have been a companion piece to the Boston Annunciation. No other Annunciation by this hand is known, although it was a favorite subject of continental alabaster sculpture. Finally, a Dead Christ (a symbolic representation of the Trinity) in the National Gallery in Washington, is perhaps the finest of all works by this hand. This latter work shows the influence, not merely of Burgundy, but of Flanders as well.

German Mediaeval Sculpture and Master E.S.

—ROBERT A. KOCH and CLEMENS SOMMER each discuss briefly a mother-of-pearl carving in the Walters Art Gallery, Baltimore (*The Journal of the Walters Art Gallery* v, 1942, pp. 119–124). The carving, which depicts the "Beheading of Saint Barbara," is one of two circular reliefs set into the medallion of a silver pax. Koch points out the striking similarity to engravings of the same subject by Master E. S., whose influence on German sculpture has long been recognized. "Translation or adaptations of his designs into plastic media, from small reliefs to monumental altarpieces, were made over all Germany in the late fifteenth and early sixteenth centuries." Sommer then suggests that Master E. S. deliberately made some of his prints as models to be translated into other media, particularly mother-of-pearl, the usual material for small reliefs in the region of the Upper Rhine. For example, his unique white print of the Madonna with the Bird was probably intended as a model for a mother-of-pearl relief.

RENAISSANCE

Iconography of St. Catherine.—GUY DE TERVARENT publishes in *GBA*, ser. vi, xxiii, 1943, pp. 308–310 (4 figs.) a panel in the Museo Correr at Venice, by an unidentified artist, dating in the fifteenth century, and, in his opinion, "one of the earliest and most exquisite examples of the Renaissance." Described in the Catalogue as representing some romance of Chivalry, he sees in it a portrayal of scenes of the history of St. Catherine of Alexandria. The panel is divided into three scenes, the central one being the theological dispute between the saint and the doctors. The scene on the left shows the visit of the wife of Maximin to St. Catherine, while that on the right suggests a number of persons going to the place of St. Catherine's martyrdom. As this panel was originally on the front of a chest, the actual martyrdom doubtless occurred on the back.

Pacully Master.—This Spanish painter of the closing years of the fifteenth or beginning of the sixteenth century is studied by CHANDLER R. POST, in *GBA*, ser. vi, xxiii, 1943, pp. 321–328 (6 figs.). The painting which gives this unknown artist his present name is a triptych, the central part of which was formerly in the Pacully collection in France, and is now in the possession of Mr. Aldus C. Higgins at Worcester, Mass., while the wings are in the Museum of Valladolid. To him are now assigned two wings from another

triptych, in the Cluny Museum in Paris, a Circumcision in a collection in Madrid, and, in all probability, a Crucifixion and a Lamentation over the Dead Christ, both in the Mateu Collection at Barcelona, while a Purification in the Fogg Museum is believed to be the work of a pupil. The artist was profoundly influenced by contemporary Flemish work, particularly Memling and Gerard David, but was probably a Spaniard rather than a Flemish immigrant.

A Titian in Boston.—G. H. EDGELL publishes in *BMFA*, xli, 1943, pp. 40–42 (4 figs.) a signed portrait by Titian, recently acquired by the Museum of Fine Arts in Boston. The subject is a gentleman, holding a book in his right hand. On the back of the mounting of the canvas is an eighteenth century inscription, alleging that the sitter is Gian Paolo Baglioni of Perugia. For various reasons, Edgell rejects this statement, inasmuch as it is known that this personage was executed in Rome in 1520, while the portrait is definitely of a later date, painted by Titian in his maturity, and on stylistic grounds not to be dated before 1540. The closest parallel to it is the portrait of Daniele Barbaro in the Prado in Madrid. The dress is of a type fashionable in Europe, and particularly in France, about 1540. Its provenance is uncertain—it is stated to have been in a private collection in Palermo, then in a dealer's possession in London, and before its acquisition by Boston, in a collection on Long Island. The signature is believed to be absolutely authentic.

Venetian Cinquecento Paintings.—W. G. CONSTABLE contributes to *BMFA*, xli, 1943 (pp. 21–28; 4 figs.) a scholarly article on two paintings recently acquired by the Museum of Fine Arts in Boston. After calling attention to the curious paradox which shows a great cultural revival and output in Venice in the early years of the sixteenth century, a period that found the Republic at the beginning of its political and economic decline, he considers the two paintings that form the subject of his paper. The first, a bequest to the Museum, is a Marriage of St. Catherine by Paris Bordone. It was bought in Venice in 1882, and at the time of its purchase was attributed to Titian. There is some evidence to believe that it had at one time been in the collection of Cardinal Leopoldo dei Medici (1617–1675). It was conclusively assigned to Paris Bordone by Berenson in 1914, when he called it one of the artist's most important works. It shows influences derived from Giorgione, Titian, and, above all, Palma Vecchio,

which mark it as an early work, dating about 1530. Some account of the life of the artist is given. The second painting, a purchase, is a Virgin and Child in Glory, by Paolo Veronese. This, one of the very few large scale paintings by this master in America, is an excellent example of his larger work. It is said to have been painted for the church of San Alessandro in Brescia, but in the seventeenth century was said already to have passed into a private collection, and since that time has been in several other collections. In 1941 it came to New York, and was purchased by Boston in the following year. On the evidence of its style, it is dated between 1562 and 1565.

Italian Rococo Terracotta.—A terracotta relief of the Virgin and Child with Angels in the Walters Art Gallery is published by GERTRUDE ROSENTHAL in *The Journal of the Walters Art Gallery*, v, 1942, pp. 57–67. The very high relief on a rectangular plaque, 31¼ inches high and 18¾ inches wide, is a typical work of the Italian rococo. The piece is signed L. G. 1757 f. The initials are probably those of Lazzaro Giosofatti, a pupil in Rome of Camillo Rusconi. Despite the paucity of comparative materials Dr. Rosenthal's identification seems certain.

A Van Dyck in Baltimore.—LEO VAN PUYVELDE contributes a brief note on van Dyck to *The Journal of the Walters Art Gallery*, v, 1942, pp. 115–118. A painting of the Virgin and Child, discovered in the Walters Art Gallery, proved after cleaning to be a very fine example of van Dyck's work. The author believes it to be the earliest and best of a series of paintings of the same subject by van Dyck. A painter often repeated successful pictures and duplicates are not necessarily to be considered copies by other artists. The Walters painting was formerly in the collection of the Duke of Marlborough at Blenheim.

AMERICA

Civilizations of Middle America.—*Bull. Univ. Mus.* x, 1943, nos. 1–2, (64 pp., 39 figs., 4 other illustrations, map) is devoted to a description of the collections of objects of the art of the peoples of Middle America in the University Museum in Philadelphia, by J. ALDEN MASON. A brief Preface states that the publication "is prepared with a view to meeting an apparent popular need for a very brief sketch of the ancient civilizations of Mexico and Central America" and shows that the collection of the University Museum, which is one of the best in the world, is admirably suited to il-

lustrate such an essay. An Introduction (pp. 7-8) gives the geographical limits of this study, and the conditions to be expected. The first section (pp. 9-25) deals with the Valley of Mexico, and discusses the Middle Cultures (pp. 9-11) the Teotihuacan and Toltec periods (pp. 12-17) the Mixtec-Puebla period (p. 17) and the Aztecs (pp. 17-25), each culture being abundantly illustrated with excellent photographs of specimens in the Museum. The second section (pp. 26-41) deals with the Maya, and gives a good summary of what is known about them, a part of the section (pp. 32-34) being devoted to the Museum's excavations at Piedras Negras. Excellent illustrations likewise accompany this section. Pp. 42-47 deals with "Other Theocratic Cultures of Mexico;" this section is mainly devoted to a series of most interesting illustrations. A fourth section, on "The Lesser Archaeological Cultures of Mexico and Central America" takes up such tribes as the Tarascans, the unknown builders in the states of Zacatecas and Durango, the Huastecs, and the inhabitants of Nicaragua, Costa Rica, and Panama. Again, the illustrative material is very beautiful and finely depicted. A final section is devoted to the Indian peoples of Middle America today. A brief bibliography is appended, together with a list of the Museum's own publications on Middle America.

Aztec Sculpture.—In *G.B.A.* ser. vi, xxiii, 1943, pp. 257-268 (15 figs.) GEORGE KUBLER studies *The Cycle of Life and Death in Metropolitan Aztec Sculpture*. After mentioning the neglect it has received until recently, he shows that the history of its evolution is still unknown. The earliest datable specimens cannot be dated earlier than the middle of the fifteenth century. It is, however, certain that Aztec fifteenth century work must derive from a more ancient sculptural tradition, perhaps from southern Mexico, whose craftsmen were influenced by earlier civilizations. By the middle of the fifteenth century Aztec sculpture had found its own formula. No individual sculptors can be identified—"sculpture was the projection of communal solidarity." The technology was largely that of the Stone Age, for metal tools were a novelty, and metal was principally used for ornament. The actual carving was done by a member, or members, of a craft organization. The labor was accounted as a form of tribute, and the finished work was assigned to a given cult and its priesthood. Most of the specimens illustrated in the article were found in the great cult center,

which stood on the site of the Cathedral plaza of Mexico City. It is difficult accurately to identify the iconography of these pieces. Not only is the human figure represented, but many animal and plant forms as well. The human figure is nearly always flaccid, static, and passive, and often associated with the symbols of death. "In the portrait of Aztec man by his own sculptors, there is lacking the daemonic conception of humanity." In the representations of animals, on the other hand, there is a strikingly intensive vitalism. This is particularly true in the case of serpents, with which Aztec craftsmen were much preoccupied, but appears as well in the portrayal of the great cats, the puma and the jaguar. Even insect forms show the intensely dynamic conception of the sculptor (a grasshopper is illustrated). In plant forms great clarity and accuracy is shown. At the end of the article the writer tries to solve the problem of why human forms in Aztec sculpture are static and moribund, while animal forms are dynamic and vital. He believes that the reason may be found in the custom of human sacrifice common to Aztec religion, under which men were in the constant shadow of death.

American Georgian Architecture.—In *P.A.P.S.* lxxxvii, 1943, pp. 65-69 (22 figs. on 9 pls.) THOMAS JEFFERSON WERTENBAKER discusses the development of architecture in Colonial North America. By means of illustrations he shows the different trends in Massachusetts, Connecticut, New York, New Jersey and Long Island, Philadelphia, German Pennsylvania, Maryland, Virginia and Charleston. Particular attention is paid to Virginia, where in such early examples as the Thoroughgood House, and "Bacon's Castle" the English prototypes are very evident—in the latter instance we have the sole survival of Tudor architecture in Virginia, a type originally quite common. The New England houses, though derived from the same prototypes, took on a different form, due to conditions of climate, and limitations of building materials. Quite different from New England and Virginia were the houses of the Germans in Southeastern Pennsylvania—a good example is the Herr House, near Lancaster. In New York, as was to be expected, the architecture was of the Dutch type. Philadelphia "had the distinction of being the first Renaissance city" in America, and drew its inspiration from the new London, rebuilt after the Great Fire of 1666. With the opening of the eighteenth century, the colonies could therefore boast of several

distinct styles of architecture. As contact with England grew stronger, so grew the impulse to imitate English styles. Architects migrated to America, and the American Georgian arose, creating a greater uniformity. Even then, there were differences, due to conditions of climate, available building materials, social customs and economic life. "The children—resembled the parent—but were as easily told apart as are the individual members of a family." The principal text-book evolved was the *Manual* of the Carpenters' Company of Philadelphia. Leading examples of the Philadelphia style are "Mount Pleasant," Independence Hall, and Nassau Hall at Princeton. In Virginia, the influence of Sir Christopher Wren is seen in William and Mary College, designed by him, and the Governor's Palace at Williamsburg, which set the style for the great Virginia houses like Westover. In Annapolis the style was more purely Georgian—the most perfect example is the Hammond House. For church architecture, Virginia, in such edifices as Bruton in Williamsburg, retained a seventeenth century flavor, while in the eighteenth century a form peculiar to that locality was adopted, in towerless rectangular structures, or in the form of a Greek cross—good examples are Pohick and Acquia Churches. In Charleston a still different form of domestic construction was involved, due to topographical conditions. Finally, in New England, a style in wood was developed, "as pleasing as it was unusual." Examples can be seen in Cambridge and Salem, Mass., Portsmouth, N. H., and elsewhere. "At first sight, the conquest of America by Georgian architecture would seem to prove its complete subserviency to English culture. In fact, it proves the contrary, for the colonist built, not English Georgian houses, but American Georgian houses."

Jefferson and the Arts.—In *PAPS*. lxxxvii, 1943, pp. 238–245, FISKE KIMBALL discusses this subject. "Among the founders of the Republic who included other men of wide reading and high scientific attainments, Jefferson was unique in being also devoted to the arts as an amateur, as a collector, as a patron, and in architecture as a gifted creative artist of far-reaching influence."

In the fields first named he was, in succession, a talented violinist and collector of the best violin music of his day; a founder of art collections, especially of copies of European masters—by commissions entrusted to others, and by his own European purchases. He was, besides, an intelli-

gent student with a large and growing library in the fields of the studies on painting and sculpture, building a solid background for a discriminating taste that recognized contemporaries of worth as it appreciated the older masters—Stuart, Trumbull, West, Houdon, Joseph Wright and others benefiting by his support.

It was in architecture, however, that Jefferson was most to leave his mark. In Paris he himself developed the sketches for the Virginia state capitol, modifying the plan of the Maison Carrée of Nîmes, and thus leading the way for English and French designers of executive buildings by a score of years. He aided L'Enfant, also, in planning the new Federal city of Washington. Monticello's beauty and the stately tall columned Roman porticoes at Edgehill, Farmington, Edgemont, Amptill, Barboursville were his contribution to the type that was to prevail for great houses in the ante-bellum South.

He transcended the weaknesses of his models: "a clear analysis of practical uses, an instinctive sense of form tacitly directing his processes of mathematical determination, led him to a synthesis embodying crystalline unity and perfection." This shines most clearly in the structures he designed for the University of Virginia.

FAR EAST

Chinese Bronze Bell.—LAURENCE C. S. SICKMAN discusses, in *GBA*. ser. vi, xxiii, 1943, pp. 377–380 (2 figs.) what little is known of Chinese music of the period of Confucius (the turn of the sixth century B.C.), pointing out that Confucius and his disciples had much to say about it, but that most, if not all, of it was destroyed about 221 B.C. In the Han Dynasty (206 B.C.–220 A.D.) great efforts were made to revive the more ancient culture, but much of the loss was irreparable. Of ancient musical instruments, only bronze bells and stone or jade chimes remain today. He publishes a fine bronze bell recently acquired by the Nelson Gallery at Kansas City, beautifully decorated with animal reliefs. It had no clapper, but the side is covered with bosses, which were struck with a wooden mallet. It was found in 1938 in a tomb, along with perhaps sixty others, in Honan Province, at Hui Hsien, and is dated with reasonable certainty early in the fifth century B.C.—i.e., during the lifetime of Confucius.

Javanese Head.—The Museum of Fine Arts in Boston has recently been given a Javanese head of the Buddha, which ANANDA K. COOMARASWAMY

publishes in *BMFA*, xli, 1943, pp. 33-34 (fig.). It comes from the Candi Sewu temple group at Prembanam, near Jogjakarta in Central Java, and is dated with some degree of accuracy at about 800 A.D. The head is of the Dhyanī, or contemplative Buddha, and shows the influence of the Gupta art of the Ganges Valley.

Tomb of Chinese King.—The *New York Herald-Tribune* for December 12, 1943, under a date-line of Chengtu, China, reports "the greatest find in China since archaeologists started deciphering the oracle bones of Honan." This is the tomb of a king, Wang Chien, who lived a century before the Crusades in Europe. He was born in 847 A.D. in the province of Honan, and reigned in Szechuan from 907 to 918, when he died at the age of seventy-one. The tomb was under a mound, and had been looted of its more precious objects in antiquity. The major finds were a stone statue of the king, a number of objects dedicated to him, wall-paintings, and a belt of jade inscribed with a date equivalent to October 27, 915. This Wang Chien was of lowly origin, but in youth joined the army, rose to high rank, and ultimately set himself up as King of Szechuan, reigning in the chaotic period between the end of the T'ang and beginning of the Sung Dynasty. The tomb was discovered by Professor Feng Han-chi, Curator of the Szechuan provincial Museum, and T. K. Chien, Curator of the University Museum of Szechuan; in their investigation of its contents they were assisted by Dr. Wu Chin-ting, who was the decipherer of the oracle bones of Honan.

U.S.S.R.

The Institute of the History of Material Culture (GAIMK, later IIMK) of the Academy of Sciences of the U.S.S.R. has issued a Jubilee Volume celebrating the twenty-fifth anniversary of Soviet historical scholarship edited by V. P. VOLGIN, E. U. TARLE, and A. PANKIATOVA. This volume contains three papers dealing with archaeology of: (a) the whole U.S.S.R.; (b) the Caucasus; and (c) Central Asia. In this summary we shall deal with the first third of (a). The numerous footnotes have been omitted.

S. V. KISELEV writes that much new light has been shed upon the Stone Age by recent Soviet excavations. A number of sites explored in the western Caucasus will probably contribute much toward the understanding of the Chellean and Acheulian periods. Particularly successful, however, was the search for Mousterian sites cor-

responding to the maximum glaciation of the Riss period. Before the Revolution, Volchi Grotto near Simferopol was the only excavated Mousterian site in Russia. This southerly location helped to spread the belief that during that period the northern part of eastern Europe was not populated. The discovery of Mousterian sites along the Derkue and along the middle Desna, and also the finding of Mousterian implements on the very eve of the War at Ostrovskaya on the Chusovaya River have proven convincingly the existence of Mousterian settlements throughout European Russia even in the regions directly adjoining the zone of glaciation. Also recently the discovery was made of the first Mousterian site in Central Asia at Teshik Tash near Tashkent.

While Aurignacian, Solutrian, and Magdalenian sites were known in pre-Revolutionary Russia, during the Soviet era their number and their range of distribution were greatly expanded, as Palaeolithic sites were explored in the Urals, and in western, southern, and eastern Siberia. Many previously unknown details of everyday life of the Stone Age were brought to light. At Gagarino and Kostenki on the Don and at Malta near Irkutsk semi-dugout dwellings were discovered, testifying to the sedentary character of the Aurignacian-Solutrian and even the Magdalenian hunters. At Timonovskaya an entire village of such dwellings was discovered by V. A. Gorodtsov. The finds at the other sites have contradicted the commonly held belief of the backwardness of eastern Palaeolithic man, for example, as the famous female figurines excavated at Kostenki and the well known effigy of a mammoth at Malta.

In the later periods our knowledge has also been greatly expanded. In addition to the Azilian and Kitchen-Midden sites, Sviderian and Tarde-noisian types of settlement have been identified. In the south, mainly in the Crimea, were found cave sites of a culture closely related to the Upper Capsian, suggesting a very early connection between South Russian and the Mediterranean cultures.

By applying palaeobotanical methods of investigation it became possible to elaborate the chronology of many Neolithic sites of the forest zone of eastern Europe. Thus it became possible to identify hunter-fisherman's sites in which the Neolithic cultural pattern was being formed at the time when the Neolithic still dominated in the south.

At the same time a long series of settlements was brought to light in which survivals of Neolithic cultural pattern persisted into the third and even into the second millennium B.C., while the Bronze Age was completely dominant in the south. Significant discoveries were also made at Neolithic burial grounds, of which the most important were those at Mariupol near the Sea of Azov, Olenii Ostrov on Lake Onega and the burials near Angara River and Lake Baikal.

Important results were achieved by the archaeologists who studied the early agricultural culture of Tripolje, during which the population of the Ukraine west of the Dnieper became first acquainted with copper. T. S. Passek succeeded in reconstructing in great detail the architecture and the way of life of the Tripolje settlements of the fourth to the third millennia B.C. The notorious Tripolje platforms, subject of a welter of controversy during the first decade of the present century, were finally proven to be ruins of clay houses of the dwellers at Tripolje. These buildings were elongated in shape and consisted of several rooms, each being occupied by a family having its own oven and its sacred hearth (altar). The Tripolje dwellings resembled in floor plan the so-called long houses of the American Indians who engaged in agriculture and retained the norms of the *Mutterrecht*.

The finding of many seeds of *graminae*, hoes, stone sickles and querns demonstrates the exceptional rôle played by agriculture, and the presence of numerous female effigies of household deities permits the supposition that the maternal gens form had been preserved.

At the present time many specialists are engaged in studying the chronology, genesis, and cultural affinities of the Tripolje culture. Of particular interest in this connection is the study of the ornamental motifs of the famous Tripolje painted pottery with parallels in the West (Danubian settlements) of the beginning of the Metal Age, in Iran (Susa), Central Asia (Anau) and China (Yang Shao).

The fate of the Tripolje culture was disclosed by the recent excavations at Matovo near Odessa, where permanent dwellings were lacking. A light stone strip, of circular shape, indicated the outline of the light and obviously temporary huts. Among the finds, bones of domestic animals predominated; agricultural implements were lacking. The hoe agriculture of Tripolje had been replaced by animal husbandry, requiring frequent

moves and obviating the need for the large permanent clay house of the Tripolje culture.

The burials contained male inhumations accompanied by live (?) burials of two women. Such rites are not compatible with the ideas of matriarchy and indicate the strengthening of patriarchal tendencies. These are also supported by the development of animal husbandry and the increasing importance of the male shepherd.

The Bronze Age monuments on the Black Sea steppes were first described during the beginning of the present century by V. A. Gorodtsov—who distinguished three successive stages of tumulus burials: "*Iamnye*" ("Pit"); "*Katakombnye*" ("Catacomb"), and "*Srubnye*" ("Log House type"). New excavations in the Don River basin, and along the lower Volga have demonstrated the correctness of this classification. At the same time it became possible to establish that these three types of burials correspond to three successive cultural patterns. (a) the most ancient, "Pit" type corresponding to the hunting-fishing stage; (b) the "Catacomb" type, to the pastoral with rudiments of agriculture; and (c) the "Log House" type, to the predominantly agricultural. Many regional variants have been described in the Volga, Donets, Kuban, and northern Crimea. At the same time the excavations of Bronze Age sites have yielded many important results. Important finds were made at the sites of the "Log House" culture, attributed to the end of the Bronze Age (second half of the second millennium B.C.). The settlements of this period are closely reminiscent of the Tripolje monuments, being extensive and populous, using elongated dwellings (which at this stage become partly submerged and partly built of wood) and mainly by the dominating position of agriculture. At the same time it was demonstrated that patriarchal relationships predominated. The rôle of the clan elders attained great importance and power. To this period belong extensive hoards of precious objects; very large tumuli were erected over the burials of the leaders.

Shortly before World War II one of the largest tumuli of the period was excavated at "Tri Brata" near Elista in the Kalmyk A.S.S.R. This was characterized by the presence of rich burial sites without parallel in the Bronze Age.

Numerous Bronze Age monuments were also found in the more northerly areas of eastern Europe. Many new monuments of the Fatianovo culture were explored in the area enclosed between the Volga and Oka rivers. Of particular importance

was the discovery of bones of domestic animals associated with Fatianovo burials. These permit assigning the emergence of animal husbandry in the forest zone of eastern Europe to a period as early as the Bronze Age. Another series of Neolithic sites, but existing into much later periods, have been discovered near the Oka River. Some of them (e.g. Panfilovskaia near Murom) show traces of Fatianovo influence; others show unmistakable connection with the southern "Log House" culture.

For the first time Bronze Age monuments have been studied in the Oka Kama area of the Volga country. A series of sites and tumulus burials, combining local traits with those from the "Log House" culture of the south and its related Andronovo culture from Siberia was found to belong to an agricultural culture of the second millennium B.C., and was locally named the Abashevo culture.

A series of monuments, discovered in the peat bogs of the Urals, was attributed to the latter part of the Bronze Age. The most valuable finds came from Gorbunovski peat bog near Nizhni Tagil. Several rafts, submerged under peat, served as sanctuaries; on them stood carved wooden idols near which were carved wooden offertory vessels, decorated with realistic effigies of birds and moose, well-made wooden oars, complete arrows and even a boomerang. The sites on the shore of the swamp showed that the inhabitants engaged in fishing and hunting, used flint implements, but at the same time were familiar with bronze casting, while the shapes of bronze objects were apparently borrowed from the Fatianovo culture.

Significant discoveries from the Bronze Age were made recently in Trans-Caucasia, including the excavations of tumulus burials on Tsalka River in Georgia by B. A. Kuftin, whose analysis disclosed close intercourse between the ancient peoples of Trans-Caucasia with the countries of the Ancient East. The culture of Trans-Caucasia was shown to be a guardian of the traditions of the most advanced civilizations of antiquity. The basic stages of the Bronze Age in Central Asia were also studied. Of particular importance was S. P. Tolstov's work in northern Khorezm.

For the first time Soviet archaeologists studied the Bronze Age in Siberia. The development of the Siberian Neolithic in the taiga areas of Lake Baikal and along the Angara River was studied by A. P. Okladnikov. It was shown that the two

earliest stages, the Isakovskaia and Serovskaia, represented the true early Neolithic Period. The third stage, the Kitoiskaia, was a parallel of some similar Neolithic survivals in the forest zone of European Russia. While in the taiga zone of Siberia the population continued living under Neolithic conditions, the inhabitants of the more southerly steppe regions were mastering techniques for working copper and bronze, and were also undergoing far reaching changes in economic and social life. The investigations of S. A. Teplovkhov, G. P. Sosnovskii and S. V. Kiselev show that the Bronze Age of Siberia has passed through three cultural stages: the Afanasievo; Andronovo; and the Karasuk. The first, contemporaneous with the Kitoiski stage of the taiga, was characterized by the first use of animal husbandry and metallurgy and, in connection with this, with the increase of the patriarchal tendency.

The second stage was distinguished by the development of agriculture and spread of settlement and also by the intensification of intertribal relations. This led to a strong cultural unity among the different tribes of Siberia and the Urals, where the Andronovo culture survived down to the end of the Bronze Age and formed the basis for a local, Sarmatian, Scythian-like culture.

The third, which developed in the area between the Karaganda and Yenisei rivers had a different fate. This area attracted the populations from North China, fleeing the area under the impact of the Shan-In and later Chou (?) Empires. Under the influence of the immigrants, there developed the vigorous southern Siberian Bronze culture of Karasuk, which in Chinese chronicles is attributed to the Din Lin (?) tribal union. The Karasuk culture set the foundations for the further development of southern Siberia.

The Scythian monuments of southern European Russia were studied, in the main, *in camera*. At the same time it was possible to trace a strong connection of typically Scythian elements with the pre-Scythian Upper Bronze Age culture of the Black Sea area. This brought to light the important rôle played by the aboriginal groups of population in the Scythian world. Particular attention was paid to the study of the eastern Sarmatian monuments. Rich finds made by B. A. Grakov in the tumuli at Blumenfeld near Saratov (fifth century B.C.) have shown the viability of the archaic elements of Scythian culture in areas far removed from the Greek-influenced Black Sea

littoral. These excavations have greatly supplemented the materials on Sarmatians collected by M. I. Rostovtsev at Pokrovskol near Orenburg (now Chkalov).

Archaeologists in Saratov have achieved important results in the course of the excavations of the Sarmatian tumuli of the Volga area. There it was possible to identify a series of stages in the Sarmatian culture, and to trace its development down to a fairly recent period (fourth-fifth century A.D.). Both here, as in the Black Sea area, it became evident that a group of jewelled ornaments, decorated with incrustated geometric designs in many colors, which was formerly mistakenly known as Gothic, was actually of Weal, Bosporo-Sarmatian origin. Of great interest were also the results of anthropological investigation of Sarmatian remains from various necropoleis of southern Russia. These have shown convincingly that a strong connection existed between the Sarmatian tribes and the more ancient populations of southern Russia and the areas further east.

Very extensive finds pertaining to the Scytho-Sarmatian period in the more northerly and easterly areas of the U.S.S.R. have been made.

The *gorodishches* of the so-called Diakovo type

have been long known in the Volga-Oka "Mesopotamia." New data, secured from an extensive series of excavations, have demonstrated the derivation of this culture from the vestigial Neolithic Period of the Oka and the Upper Volga, and have also shown that the most ancient of these (e.g. Kashirskoe *Gorodishche*, excavated by V. A. Gorodtsov) belong to the seventh-eighth century B.C., while their further history was traced as far as the sixth-seventh century A.D.

The significance of their study will become clear when it is remembered that the Diakovo type *gorodishches*, remains of fortified communal villages of a primitive pastoral-agricultural people, are the only source of our information on the life of the Volga-Oka "Mesopotamia" during a period of almost fifteen hundred years. Their importance for the study of the origin of northeastern Slavs will be mentioned later. For the same reason must be mentioned the extensive accumulations of materials from the Lower Oka "Gorodetskie" *gorodishches*, and the "Kostenosnye" (bone-containing) *gorodishches* of the Vyatka-Kama country. Here it may become possible to trace the formative stages of a number of contemporary peoples of the Volga and Kama, Mordvian, Udmurt, and Chuvash areas.

BOOK REVIEWS

RESEARCH ON EARLY MAN IN BURMA, by *Hellmut de Terra* and *Hallam L. Movius, Jr.*, with SUPPLEMENTARY REPORTS UPON THE PLEISTOCENE VERTEBRATES AND MOLLUSKS OF THE REGION, by *Edwin H. Colbert* and *J. Bequaert*, and PLEISTOCENE GEOLOGY AND EARLY MAN IN JAVA, by *Hellmut de Terra*. *Transactions of the American Philosophical Society*, n. s., volume XXXII, part III, pp. 263-464, 35 plates, Philadelphia, 1941-1943.

This joint work covers the results of the American Southeast Asiatic Expedition for Early Man, which was sponsored by the Academy of Natural Sciences of Philadelphia and the Peabody Museum of Harvard University, with the assistance of the American Philosophical Society, the Carnegie Institution of Washington and the Museum of Comparative Zoology of Harvard University. The expedition was in a way an outgrowth of the International Symposium on Early Man, which was held under the auspices of the Academy of Natural Sciences of Philadelphia in March, 1937.

Dr. de Terra had already been the leader of an expedition to India. One of its results was to show the need of new data, both stratigraphical and archaeological, which might be found in the regions lying between India and China on the one hand and India and Java on the other. Burma seemed to be the most suitable field, because of its geographical position and because of the recent finds of Stone age tools and of Pleistocene terrace formations in the Irrawaddy Valley. Following the Symposium, a plan was worked out by *Père Teilhard de Chardin* and Dr. de Terra, both eminently fitted for the task by work they had previously done in Southeastern Asia. De Terra, leader of the expedition, was its geologist; Dr. Hallam L. Movius, Jr. of Harvard University, was its prehistorian.

The solution of problems bearing on Early Man require the combined efforts of the geologist and the prehistorian. The former tells us the age of the deposits in which the fossil remains of man as well as of his culture occur; the latter reconstructs from these remains the successive stages in man's physical and cultural evolution. De Terra's study of the Pleistocene of Burma is presented under five topics: Geographical Elements of the Region, Geological Observations in

the Irrawaddy Basin, Observations in the Northern Shan Highlands, The Pleistocene History of Burma in relation to that of neighboring regions, and The Cyclic Nature of Pleistocene Stratigraphy. His text is accompanied by numerous figures, especially sections of deposits and diagrams, also maps. The twelve excellent plates give one an intimate view of the terrain.

In "The Stone Age of Burma," Movius states that "the implements collected during the 1937-1938 season differ in several fundamental respects from those of Western Europe, and "for this reason the culture has been given a new name." The name chosen is *Anyathian*, at the suggestion of E. J. Bradshaw, Government Geologist at Yenangyaung. In a chronological sense the Early Anyathian covers approximately the time-span of the Lower and Middle Palaeolithic periods of the Old World; the Late Anyathian may be considered the equivalent of the Upper Palaeolithic Period, according to Movius. In the Irrawaddy Valley, he found no development corresponding to the Middle Palaeolithic; in fact, the typology of the Anyathian is found to be remarkably uniform throughout the entire Old Stone age of Burma. Movius notes the complete absence of hand-axes as a most significant feature of Anyathian culture; he concludes that the Burmese Palaeolithic peoples preferred chopping tools and those of the adze or chopper variety. In the making of tools the principal materials used were fossil wood, silicified tuff and quartzite. Movius finds that the archaeological material discovered to date has proved the obvious fallacy of attempting to classify the Old World on a basis of a single taxonomic scheme. The classic Western European sequence is absent in Southeastern Asia.

Movius throws new light on the Neolithic Period in Burma, where the culture had been confused with the Palaeolithic, some of the confusion seeming to be due to the nature of the material used in the making of the tools. The association of pottery and polished stone implements with those resembling the Palaeolithic helps in solving the problem of age. However, whether or not a true Neolithic food-producing culture is represented, is not as yet established.

Of the faunal remains collected by the Expedition, the Pleistocene vertebrates were turned over

to Dr. Edwin H. Colbert of the Academy of Natural Sciences of Philadelphia, whose report is both ample and instructive. The same may be said of the report on the fresh-water shells from cave deposits in the Southern Shan States of Burma, by Dr. J. Bequaert of the Museum of Comparative Zoölogy of Harvard University.

In the final chapter: "Pleistocene Geology and Early Man in Java," de Terra summarizes the discoveries made in Java since the record-making discovery of *Pithecanthropus erectus* in 1891 by Eugene Dubois. The *Pithecanthropus* remains were first made known to the world at large when Dubois brought them to Holland and read a paper on the subject at the International Congress of Zoölogists held in Leiden in September, 1895. This was my first view of the original specimens, which were most impressive. Since that date Java has been looked upon as a fertile field for research bearing on early man, and, in fact, has yielded much new evidence along that line, thanks to the work of Selenka, Oppenoorth, von Koenigswald and others.

Each report in this important group is accompanied by numerous illustrations and long as well as useful bibliographies.

OLD LYME, CONN. GEORGE GRANT MACCURDY

THE THREE AGES, by Glyn E. Daniel. Pp. 60. Cambridge: at University Press; The Macmillan Company, New York, 1943. \$85.

This is an excellent essay on archaeological method. It is well written and most timely. The author is a Fellow of St. John's College and a member of its archaeological faculty at Cambridge. The essay is dated New Delhi, 1943.

The reviewer has read the brochure with keen appreciation, because it happens that his paper on the same subject, already in print, appears in this JOURNAL (pp. 10-16). The author is scholarly in his methods and gives a full list of references, but, apparently, he has missed the reviewer's paper on "The Three Ages," in the *Proceedings of the British Association* for 1937.

The concept of the three technological ages of man (Stone, Bronze, Iron) originated with Christian Thomsen, who, in a guide book to the museum at Copenhagen, announced it in 1836. His pupil, Jan Jakob Worsaae, confirmed the correctness of the idea as applied to northern Europe, at least. Our author emphasizes the fact that "Thomsen's three ages are technological stages in the development of man in a portion only of the Old World." He advocates the use of "stages" instead of

"ages." The three ages, of course, "were not everywhere contemporaneous." The use of stone, for example, survives to this day; and there never was a Bronze age in Africa. Near the close of the essay, summarizing his argument concerning the inadequacy of the Thomsen three-age system, our author says: "Its importance to modern archaeologists lies in the fact that it did produce some order out of the chaos which was prehistory up to the beginning of the nineteenth century, and that it did give prehistorians something to work on, a basis for their speculations. It is in this sense that we may re-echo Macalister's description of the system as 'the corner-stone of modern archaeology.' It has been the corner-stone, the foundation stone of modern archaeology; it was not Thomsen's fault if most subsequent archaeologists slavishly built all their structures on this one foundation stone."

As usual, discussions of this kind by archaeologists show that they are not fully aware of the differences between melting and smelting, between metal and metallurgy. Thus our author, while disclaiming modestly any proposal for a new classification, does in fact give one, on page 52. This offers four ages, namely, protolithic, miolithic, eochoalceic, and full prehistoric metal age. This will not do at all. The eochoalceic, as the word implies, is a copper age. Copper, in its native condition, was used in the early part of the Stone age, for, to primitive man, copper was soft stone. The latest period is not a metal age, for metal in its native state, copper, gold, silver, and meteoric iron also, were found and used by primitive man in the early part of his cultural stage. It is true, the quantity of metal then available was relatively small, but that remained true until man learned how to cast iron. We are living, not in an iron age, but in a metallurgic age.

VICTORIA, B. C.

T. A. RICKARD

NUZI REAL ESTATE TRANSACTIONS, by Francis Rue Steele. American Oriental Series, Vol. 25. Pp. 83. American Oriental Society, New Haven, Connecticut, 1943. \$1.75.

The excavations at ancient Nuzi (near Kirkuk, Iraq) in 1925-31 have brought to light thousands of cuneiform tablets of the fifteenth and fourteenth centuries B.C. The published tablets from Nuzi numbered about 1200 in 1942, before the appearance of an edition of 393 additional ones (in *Miscellaneous Texts from Nuzi*, Part I, by R. H. Pfeiffer and E. R. Lacheman, Harvard University

Press, 1942), which Dr. Steele could unfortunately not take into account. These published texts have been investigated from various points of view (see p. 12), but only one monograph (Dorothy Cross, *Movable Property in the Nuzi Documents*, American Oriental Series, Vol. 10. New Haven, 1937) had dealt with economic problems. Written originally as doctoral dissertations under the guidance of Professor E. A. Speiser, the books of Drs. Cross and Steele supplement one another and give us a good picture of prices and other economic factors in ancient Nuzi.

The main purpose of this investigation is "to collect and classify the great mass of data relating to real estate" (p. 14). Dr. Steele has attained this objective in regard to the published texts accessible to him, although he has not seen all the pertinent studies on the subject. His discussion of the technical terminology in the texts (including Sumerian, Akkadian, and Hurrian words) is sane and competent, although he contributes little to the findings of other scholars. He is probably right in maintaining, against the new theory of Dr. Hildegard Lewy, that the "sale-adoption" texts are "disguised sale contracts" rather than admissions of the feudal obligation of returning the property to the crown at the death of the tenant (p. 12, n. 12). Such fictitious adoptions were manifestly the most practical method of selling real estate in a feudal society in which theoretically all land belonged to the state and could not be negotiated. Other contracts discussed are loans secured by real estate and exchanges of fields; less common are wills, marriage contracts, and brotherhood or sisterhood contracts, the latter serving the same purpose as the adoption contracts. Lawsuits and depositions in court, with reference to real estate transactions, are also represented in these archives.

Perhaps the most difficult task faced by Dr. Steele is the determination of prices at Nuzi and their relation to prices in ancient Assyria and Babylonia. The data are scarce and, since payments were made in kind, not easily interpreted. Although his findings cannot be regarded as statistically accurate, it is interesting to note that the price of land was "three and a half times as much in Babylonia as in Nuzi," but that conversely the price of barley was "two and a half times as high in Nuzi as it was in Babylonia" (pp. 57 f.). Archaeologists and historians will use this valuable investigation to great advantage.

HARVARD UNIVERSITY ROBERT H. PFEIFFER

CORINTH, Vol. VII, Part I: THE GEOMETRIC AND ORIENTALIZING POTTERY, by Saul S. Weinberg. Pp. vi+104, pls. 45. Harvard University Press, Cambridge, Massachusetts, 1943. \$5.00.

The latest volume in the Corinth series publishes all the Pre-Geometric, Geometric and Orientalizing pottery which has been found since the beginning of excavations there, with the exception of that from the North Cemetery and the Potters' Quarter. Much of this pottery has been published before, notably a number of Early Geometric vases discussed in *AJA*, ix, 1905, pp. 411-21, and a large group of Early Corinthian vases published in *AJA*, xli, 1937, pp. 217-36. It is, however, very useful to have all the vases of these periods brought together in a single volume. Most of the photographs of the pottery are good and well reproduced.

Beside the catalogue of the vases, the author discusses briefly their style and chronology. In most cases, all that is really essential seems to have been said about the vases. One or two, however, might seem to merit somewhat more detailed study, especially the fine olpe of pls. 20 and 21. One might raise some question as to the dating of a few of the vases. Nos. 147 and 181, for example, which are assigned to the Late Protocorinthian period, should possibly be called Early Corinthian.

The final chapter, which states the conclusions to be drawn from a study of the vases as a whole, types of clay and glaze, modification of shapes, and development of decorative motives, etc., is most useful and gives a very clear and concise picture of the most important phases of the Corinthian vase industry. I should take exception to only one statement, i.e., that "most of the pottery made at Corinth after the middle of the sixth century was in imitation of Attic pottery." The Conventionalizing style of Corinthian pottery was a very prolific one which began not much before that date and continued throughout the sixth century. This same typically Corinthian style, though considerably reduced in amount and degenerated even beyond the not too high standards of its beginnings, can be traced at least as late as the latter part of the fifth century. The sixth-century phase of the style, illustrated by such vases as pl. 44, 368, also *Necrocorinthia*, figs. 180, 181, 189, 190, is abundantly represented at Corinth, and is not by any means unknown at other sites. It is my impression that in the sixth century the vases of this style, if counted, would outnumber the imita-

tions of Attic pottery, although in the next two centuries the reverse would certainly be true.

AGNES N. STILLWELL

SAUNDERSTOWN, RHODE ISLAND

CORINTHIAN VASES IN THE HEARST COLLECTION

AT SAN SIMEON, by D. A. Amyx (in *University of California Publications in Classical Archaeology*, vol. 1, no. 9). Pp. 207-232, pls. 28-32. University of California Press, Berkeley and Los Angeles, 1943.

A more complete contrast can hardly be found than between the preceding volume and Amyx's article, though both are publications of vase collections. One may occasionally wish for the inclusion of further details or material in Weinberg's book, although, in general, its conciseness is not detrimental to the material, but in the other publication no smallest drop of information which could be wrung from the vases has been left unwrung.

Four of the Hearst vases are excellent examples of Middle Corinthian style and one, a bottle of rather unusual shape, is Late Corinthian. The convex pyxis with handles in the form of female heads is a welcome addition to this important class, although the heads are not sufficiently well modelled to throw much new light on the sculptural style of the period. It seems to me that the plastic siren illustrated in *Perachora* i, pl. 105, no. 217, might be mentioned as a legitimate parallel to the heads on the Hearst vase. In connection with this vase, the author summarizes the stylistic development of Corinthian plastic heads. The second of the vases, a flat-bottomed aryballos, is of very fine style. Although the other three vases do not rise above the average run of Corinthian vases, they have some points of interest, and the author has succeeded in connecting them with groups of Corinthian vases elsewhere.

AGNES N. STILLWELL

SAUNDERSTOWN, RHODE ISLAND

AN ATTIC CEMETERY, Excavations in the Kerameikos at Athens under Gustav Oberlaender and the Oberlaender Trust, by George Karo. Pp. 45, pls. 38, frontispiece. The Oberlaender Trust, Philadelphia, 1943. \$2.50.

The dedication of this useful little volume, *In Memoriam Gustav Oberlaender*, gives both the reason for the publication and a key to its contents. Both the Introduction, which is a biographical characterization of and a tribute to the patron of

the excavations in the Athenian Kerameikos by the German Archaeological Institute, and frequent references in the succeeding chapters express the appreciation of the former Secretary of the Institute in Athens to the German-American manufacturer who showed his gratitude for his early training in Homer by financing and encouraging the painstaking scientific investigation of one of the most important archaeological areas of Athens.

The brief chapters treat chronologically the area just outside the Dipylon and Sacred Gates in the walls of Athens, which served as the chief cemetery of the city from Submycenaean times throughout antiquity. There is room only to summarize the characteristic constructions, grave contents, and grave monuments of each period and to emphasize the significant contributions made to archaeological knowledge by this excavation. These are numerous and outstanding.

The earliest cemetery on the site was established in the twelfth century B.C. for the suburban village nearby. The simple furnishings of the rectangular pit graves are typically Submycenaean in style. About 1100 B.C. a striking change in burial custom took place and cremation replaced inhumation. The significant thing, however, is that "there is no trace of any racial change. The archaeological evidence entirely bears out the historical tradition that the Dorian Invasion, which overran the greater part of Greece at this time, did not penetrate into Attica." Cremation was, however, adopted by the Athenians and remained the custom throughout the Protogeometric period, ca. 1100-950 B.C.

Equally important with the firm establishment of the fact of the continuity of the Athenian people is the definite evidence for the continuous development of pottery and the direct growth of Protogeometric out of Submycenaean. Not only is the much disputed origin of the Geometric style now clear, but further, the logical development within the style between ca. 1100 and ca. 700 B.C. can now be traced for the first time from definite stratigraphic evidence. From this "first great flowering of Attic ceramic art" which includes first the burial urns themselves, then offering vases buried in the graves, and finally the colossal vases which are the first funeral monuments of historical Greece, we follow the development of pottery and figurines into the Orientalizing period.

Here, too, the Kerameikos excavations have made notable contributions. Seventh-century

Attic pottery has been very imperfectly known until quite recently. The Kerameikos has not only revealed some of the finest examples of this vigorous, experimental art, so truly Attic in its grandeur, but has given the best stratigraphic evidence for the dating of this rapidly changing style. A new burial custom appears now: channels of sun-dried brick in which the offerings of the funeral ceremony were put and then sealed over. These channels, peculiar to Attica, go out of use early in the sixth century B.C. and nowhere else are so well preserved and richly furnished as here.

The heaping up of a mound of earth to mark the grave begins ca. 650 B.C., and late in the seventh century another form of monument, unique to Athens, appears: a rectangular house-like building of sun-dried brick, stuccoed and covered with a flat roof edged with limestone slabs. About this time limestone or marble statues or stelae began to replace the huge vases as monuments at the tumuli. Good examples of sixth-century statues and reliefs of men and lions have been found.

In contrast to the richness and beauty of the sixth-century funeral monuments is the striking scarcity of monuments in the great years of Athenian fifth-century power and prosperity and artistic achievement. There are hardly any funeral monuments from the years 480 to 420, but the period is represented in the Kerameikos area by the chief building activity of Athens following the Persian War, namely, the city fortification wall. The haste and the use of Pre-Persian funeral monuments for building material noted by historians are amply attested by the excavations. It was in the fifth century that the first Pompeion, storehouse from which they set out for processions, was built just inside the wall and beside the main gate. Just outside the gate on the road to the Academy was built soon after the Persian invasion the oldest bathing establishment known in Greece. These public baths with a circular hot bath were rebuilt at least three times during the fifth century. Perhaps the most spectacular monument from this period is that identified recently with the numerous holes in the ground around the Dipylon Gate containing remnants of wooden posts. The suggestion that they supported the "platforms specially erected for funeral orations in honor of citizens who had fallen in battle" means that here may be the traces of the site where the most glorious tribute ever paid to Athens was spoken by Perikles (hardly, however, in 420 B.C. as printed on p. 24).

The excavations have revealed three striking late fifth century funeral monuments, one a fine sculptured stele in the typical broad form of the period, representing a woman with a baby; another, the official grave of the thirteen Spartan generals who helped to free Athens from the Thirty Tyrants in 403 B.C.; and the third, the best preserved example we have of an especially elaborate arrangement of burial: a bronze bowl wrapped and put in a wooden chest which in turn is contained by a stone sarcophagus within a brick chamber. It is suggested that this may be the grave of Alkibiades since a mid-fourth-century stele found in the same family lot is inscribed with the name of his granddaughter.

The great period of fine sculptured marble funeral monuments is the fourth century. The large family lots, bounded by stone, often ashlar, retaining walls, and set on terraces rising back from the roads, were ornamented with cypress trees and shrubs and monuments—broad stelae often set in naiskoi, animals on high pedestals, large marble loutrophoroi carved in relief. These luxurious monuments (of which the excavations have uncovered some fine small stelae and vases) were brought to an abrupt end by the laws of Demetrios of Phaleron which in 317–316 B.C. prohibited any monuments save the simple inscribed *kioniskoi*, marble cylinders, which thereafter occur in profusion into Roman times.

The Dipylon Gate as we know it dates from the fourth century, as does the fountain house just inside. The fourth-century Pompeion, larger and finer than the original fifth-century structure, has a spacious colonnaded court with rooms on two sides and a marble propylon. This in turn was replaced, after the disastrous destructions of Sulla's conquest, by a Hadrianic building which survived till the sack of the Heruli in 267 A.D. Byzantine potters later occupied the site.

Karo concludes with a description of the well-arranged museum built above the Street of the Tombs by Oberlaender to house the valuable finds so that they may be seen and studied to advantage.

The Bibliography, which enumerates the preliminary reports in the *A.M.* and the *A.I.* and the final publications of Brueckner (for the pre-Oberlaender period), Kraiker and Kübler and Riemann, is more than a formality; it is a necessity, for the scope of the volume allows little more than mention of each class or group of graves, pottery, monuments. For any detailed account of

the facts or conclusions which Karo records reference must be made to the publications. The 38 plates include a brief selection of Submycenaean to sixth-century tombs, pottery, and figurines, the principal sixth-fourth century sculptural monuments, a few plans, and views of the museum.

The text is very pleasantly readable, characterized by the author's unusually happy and wide command of language. A few slips may be mentioned: on p. 20 for Plate 37b, read 38a; on p. 36 for 500 B.C., read 500 A.D.; on p. 41 for Plate 37b read 38a and for 38a read 37b; on p. 44 under 2a, 13 is omitted and, although unimportant in this volume, might have been included to avoid the confusion the reader feels as to what the number refers to on the plan, under 6; for Plate 55 read 54-56.

For those to whom the *AA.* and the final publications are not available, this admirable summary of the achievements of the Kerameikos excavation is especially valuable; to all those interested in Athenian art and custom this vivid picture of a most significant area as it changes and develops in unbroken continuity from prehistoric through Roman times will be welcome. They will, however, be disappointed to find such inadequate treatment of the ceramic evidence which is the most significant contribution of the excavation.

MOUNT HOLYOKE COLLEGE LUCY T. SHOE

POLITICAL REFUGEES IN ANCIENT GREECE FROM THE PERIOD OF THE TYRANTS TO ALEXANDER THE GREAT, by *Elemer Baloch*, with the collaboration of *F. M. Heichelheim*. Pp. xvi+134. Witwatersrand University Press, Johannesburg, 1943. 7/6.

This timely study was prompted by the contemporary problem of the political refugee and has been published at the present time in the hope (to quote the author) that "something may be learnt to help solve our contemporary problems by comparing them with corresponding situations in ancient Greece." Keeping this aim in mind, we may note the contents of the work. Dr. Baloch first discusses briefly (ch. I) the origin of banishment in tribal usage and its adoption into the law of the city-state; he then treats at some length (ch. II) a large number of cases of proscription and banishment in the *polis* and the various changes in the laws dealing with this form of punishment. Most of the material comes from Athens: he discusses the banishment of Cylon and his supporters, the exile of the Alcmaeonids, the legal in-

novations of Solon with regard to cases of treason, the banishment of Hippias and his sons, the institution of ostracism, and the citizens' oath of 410 B.C. In addition, we have several cases of banishment from the whole territory of the Athenian Empire, and some attempts of Athens to regulate banishment in the allied cities. A brief treatment of the fourth century ends with Philip's attempt to stabilize the existing political order in the city-states. A third chapter deals with the position of political refugees during their exile; here the institutions of *metoecia* and *proxenia* served to mitigate the hardships of banishment, the alternative, naturalization and assimilation of the exiles in the state which granted them refuge, was unpalatable to both sides, so that naturalization was used merely as a temporary measure to reward loyal allies (like the Plataeans in 427 B.C.) until a new home could be found for them. The fourth chapter discusses the repatriation of exiles: the general amnesty at Athens in 403 is singled out for the highest praise: "Wherever it may be necessary to restore civic peace in a state after revolutions and counterrevolutions, this Greek example should be considered and imitated." (p. 63) Right! But Dr. Baloch immediately weakens this excellent proposal by a queer and enigmatic reference to Franco: "It is not without interest that, in the negotiations between the Spanish Republicans of Madrid and the Franco government, similar alternatives for emigration or trial in court were included in the treaty of surrender as a concession to the gallant Republicans." This fact may indeed be of interest, but it should not be cited as an example of a modern imitation of the Greek amnesty, for the important point in Athens was that the oligarchic ex-rulers were offered a trial before a jury composed of *property-owners*, i.e., members of their own class. The work concludes with a treatment of Alexander's amnesty of 324 B.C., with special attention to the problems of restoring the exiles' property; in this connection, two decrees of Mytilene and Tegea are handled in great detail.

Dr. Baloch has collected and arranged in orderly fashion a great deal of material, and has subjected his material to a keen juristic analysis. The work is fully documented (there are 42 pages of notes to 84 of text), contains a multitude of references to other modern studies in this field, and should be useful to students of Greek law. Unfortunately, misprints are frequent, especially in the notes, and the student would be well ad-

vised to look up the Greek texts quoted in the notes in some more reliable source. Also, some of Baloch's translations are misleading, if not actually wrong: e.g., in the Athenian decree of 446/5 relating to Chalcis (IG. i² 39): "I will not expel any Chalcidian from Chalcis . . . or confiscate his property: nobody being tried without (the consent of) the *demos* of the Athenians," (p. 24); the text seems to mean, "I shall not confiscate the property of anyone without trial." Similarly, the translation of [Demosth.] xvii, 16, on page 38, appears to need correction. The treatment of ostracism, which Baloch praises (rightly, I think) as "a wonderful instrument in the service of political order," is inadequate and lacking in clarity: the institution is attributed to Cleisthenes, without mention of the arguments that the practice was instituted in 487; a magnificently ambiguous sentence disposes of the vexed problem of the minimum vote for ostracism (p. 15, "The citizen, whose name was inscribed on the majority of the ostraca being not less than 6000, which were used for this poll, was thereupon expelled for 10 years"); the reader is led to believe that ostracism was used solely against potential tyrants or dictators; on page 16 the question is asked why this effective institution was permitted to fall into disuse after 417 B.C. In answer, it is suggested that perhaps "a heightened sense of justice in Athens no longer tolerated injustice being done to the innocent with full knowledge of his innocence," and that the *hetaerae* were now fostering so many aspirants to tyranny that the evil could no longer be checked by ostracizing individuals. On page 30, however, Baloch offers the right solution; the ostracism of Hyperbolus revealed that a method had been found to circumvent the effective operation of this institution.

These matters are, of course, important mainly to specialists in Greek history. To the general reader, however, the conclusions may seem somewhat disappointing, in view of the hopes aroused by the Introduction. Dr. Baloch maintains that the only satisfactory remedy today is the repatriation of the exiles, as in the days of Greece. Yet this seems to overlook or ignore the fact that many modern states are able and some are willing to absorb refugees by naturalization on a scale that was impossible for the Greek city-states. Furthermore, he has not demonstrated that such measures as the Athenian establishment of the Messenians at Naupactus or the Spartan settlement of the Aeginetans at Thyreatis were failures;

and even if such expedients failed in antiquity, one might argue that the religious concepts which made the ancient Greek exile yearn to return to the home of his ancestral gods are no longer so compelling in the modern world. Finally, any wholesale repatriation of political exiles today can only come as the result of the victory of the United Nations, when the restoration of the exiles would be one of the conditions of peace. Yet such a repatriation, imposed by a foreign power, is (as Baloch himself points out) the direct opposite of an agreed amnesty on fair terms and, far from establishing concord within the several nations, might sow the seeds of future discord. In the reviewer's opinion, one of the most opportune lessons to be learned from this study of the Greek experience with political refugees is the futility and danger of imposing upon the defeated nations a government of their former refugees who, however friendly to us, do not enjoy the confidence and support of their own countrymen.

PRINCETON UNIVERSITY CHARLES T. MURPHY

ANCIENT GEMS FROM THE EVANS AND BEATTY COLLECTIONS, by *Gisela M. A. Richter*. Pp. iii+54. 60 ills. The Metropolitan Museum of Art, New York, 1942. \$0.50.

This little picture book is probably the best and most attractive among the fine series which makes it possible for visitors to the Metropolitan Museum to buy at a low price excellent reproductions, together with a short, instructive text explaining works of art in the museum. The book served as a handbook for the memorable exhibition of recently acquired gems, an exhibition which included for the first time, in addition to the originals, magnified photographs of plaster impressions of the engravings. Thus the pictures could be seen as the artists intended the originals to be seen. Of these enlargements fifty-seven have been reproduced in the book, along with photographs of rings and of three cameos. The short introduction gives in admirably concise style the main facts about ancient gems. The illustrations are arranged in chronological order, from the late Minoan to the late Roman period, and accompanied by short descriptions which bring out all important points. The result is a kind of summary of the history of ancient art, in which hardly anything of great importance is lacking.

The only contribution which the reviewer can make is one to the author's last sentence on the cameo with the triumphal procession (p. 54):

"The identity of the other persons is also in doubt." The reviewer thinks she can identify them all with certainty. The "winged genius" is Amor, the son of Venus Victrix, who here helps Victoria to hold the heavy golden crown over the head of the Emperor. In the real triumphal procession the crown was held suspended by a slave. In the idealized representation two winged deities, one of them hovering in the air, perform this task. The "warrior" on the right side of the horses is Virtus. "Military virtue" or "manly valor" appears in short Amazon dress, with a helmet on her head, lance and parazonium in her hands and often with a second helmet under her feet on which she wears high-boots, on at least fifty-four coin issues from Augustus to Constantine the Great (Gnecchi, "Le Personificazioni allegoriche sulle monete imperiali" in *Rivista Italiana di Numismatica* 18, 1905, pp. 349 ff.; 354-359; 387 ff.; pl. xiv; Mattingly, *A Catalogue of Coins of the Roman Empire in the British Museum* i-iv, *passim*; Gnecchi, *I Medaglioni Romani* i, p. 54, No. 30, pl. 27, No. 7). She is represented in the same dress on altars inscribed "Deae Virtuti" in the provinces (Cf. *Germania Romana*, Bilderatlas ed. Römisch-Germanische Kommission des Deutschen arch. Inst.² iv, pl. xvi, 3), accompanying outstanding Romans who hunt lions or boars on sarcophagi of the third century A.D. (Rodenwaldt, in *JdI*, 51, 1936, pp. 82 ff., pls. 2-4).

The "young boy" who leads the horses on the other side is Honos. He appears in the same type, with a pallium around his lower body, together with Virtus on coin issues of Galba, Vitellius, Vespasian, Antoninus Pius and Marcus Aurelius, always with the inscription "Honos et Virtus" (Gnecchi, in *Riv. It.*, *op. cit.* i, pp. 352 and 370 f.; Mattingly, *op. cit.* i, p. 357, Nos. 255-257, pl. 58, No. 10; ii, p. 114, Nos. 530-531, pl. 20, No. 2 and 185, No. 760, pl. 32, No. 8). Honos and Virtus are the outstanding qualities which lead to a military triumph. Therefore, not only here, but also on the arch of Titus (which may have been the model for the cameo-cutter), they are the proper persons to lead the horses of the Emperor in the triumphal procession.

COLUMBIA UNIVERSITY MARGARETE BIEBER

KOLOPHON AND ITS COINAGE: A STUDY, by J. G. Milne. Pp. 113, pls. I-XIX. *Numismatic Notes and Monographs*, No. 96. New York, 1941. \$2.50.

The outbreak of war prevented this study of Kolophon's coinage from becoming a more or less

complete corpus. Nevertheless, except for the important collection at Stamboul which the author knows only through notes made by Mr. Noe, he has examined all the major collections, and the catalogue lists all specimens known to him—again with the exception of those at Stamboul.

The introduction sketches the recorded facts of Kolophon's history; these are not many at any period, and her coinage unfortunately begins only after her palmist days were over. The author then discusses the types of the coins, and their "artistic interest" (a rather flattering expression). There follow some interesting deductions about the mint and its magistrates, a catalogue of the known coins with remarks on the issues of each period, and 19 double plates.

Kolophon's coinage is not particularly beautiful or interesting, and on the whole shows curiously little homogeneity. Indeed, Milne calls it a "series of artistic spasms," and even that makes it sound more interesting than it is. The series is numismatically as well as artistically spasmodic. Many issues are now represented by only one or two specimens and must originally have been small; there were many periods when no coins at all were produced; contemporary issues are often stylistically dissimilar, standard, fabric and denominations vary greatly from period to period. In one thing only was Kolophon consistent—her types were almost always Apolline, and for five centuries Apollo himself decorated the obverse of her silver.

A few interesting points emerge from the study. That the contemporary drachms and staters of the fifth century should have Apollo as their obverse type in some cases and Artemis in others is a situation difficult to parallel. It is slightly surprising, too, that more than seventy different magistrates' names should appear on the not very numerous coins of the fourth and third centuries. More important is Milne's theory that the issue of coins at Kolophon was a kind of "liturgy" or extraordinary imposition upon the wealthier citizens. The theory cannot be said to be proved, but it is supported by the excellent analogy of the Kolophonian building inscription of 307/6 B.C. (edited by Meritt in *AJP*, 1935) which is a list of some 800 contributions for a new city wall: the ten commissioners who were chosen to collect the money themselves gave 10,000 drachmae (one gave only 370 and the rest made up the difference). Milne does not argue the matter at length, contenting himself with pointing out that the

theory helps to explain such anomalies (at Kolophon) as a single magistrate striking several denominations—perhaps when there was a dearth of wealthy men who could undertake the liturgy. But the theory is one which may have a more general application and is worth investigating further. It can, for instance, be shown that the mint magistrates at Eretria belonged to wealthy families.

The least satisfactory part of the monograph is the chronological arrangement of the coins, which is based entirely on their style. It is unfortunate that no evidence from hoards could be adduced. Under the circumstance, Milne perhaps goes too far in finding a connection between the prosperity or poverty of the city and the excellence or crudeness of its coins. The argument is circular.

Attention may be called to two very minor inaccuracies: on p. 35 it is misleading to speak of the ligature HM, for the H and the M are never combined that way on the coins; and on p. 38 K is a misprint for X which is clear in the photograph. (Milne justly remarks that "the style of this coin raises some doubt of its genuineness." So, too, perhaps, does the second Ω which does not occur again until it appears roughly fifty years later, and then only once, in Group E.)

LT. COM. WILLIAM WALLACE

NAVAL INTELLIGENCE

NAVAL H.Q., OTTAWA

THE ENDICOTT GIFT OF GREEK AND ROMAN COINS, by Sawyer McA. Mosser. Pp. 53, pls. I-IX. *Numismatic Notes and Monographs*, No. 97. New York, 1941. \$1.50.

The ninety-seventh of the well known series of *Numismatic Notes and Monographs* is a brief business-like catalogue with a short introduction and with excellent plates. It lists only 169 of the more interesting of the 1141 pieces in the F. Monroe Endicott collection, which was presented to the American Numismatic Society in 1935. The selection includes about a quarter of the Greek coins and about a tenth of the Roman, with photographs of more than 100 of them.

Mr. Endicott's collection was gathered over a period of twenty-five years, beginning in 1905 when, while he was a young man attached to the United States Legation in Cairo, the discovery of the Demanhur hoard suggested to him, and to the now distinguished Ronald Storrs, the idea of collecting as many different Alexander varieties

as possible. Thirty-five of the Demanhur "Alexander" coins are published in the present monograph: the hoard as a whole has already been brilliantly dealt with by Newell.¹

The *pièce de résistance* of the collection is an Alexander tetradrachm—a διπλῶς εὐρημένον—issued by Nikokles of Paphos whose microscopic signature Mr. Endicott discovered placed in paired letters on the five forward tufts of the lion's mane.² The coin, issued about 320 B.C., is interesting evidence of the timidity with which Alexander's little successors, long after his death, interfered with his divine arrangements. Nikokles was, at least, bolder than his more powerful and more famous contemporaries, who continued to mint Alexander's coins in Alexander's name for another fifteen years without signature of any kind.

Nine or ten new varieties of the dated Alexandria coins are published, the most interesting being a large bronze drachm of the third year of Antoninus Pius with the rare and hideous reverse type of a bust of Serapis superimposed upon a human foot. Recent writers, without this piece of evidence, have dated the first appearance of this type on Antoninus Pius' coins to his twenty-fourth year.

264 Roman coins in the collection (and 230 no longer in it) came from a single hoard which Mr. Endicott called the "Catacombs Hoard." This hoard Mosser has been able to reconstruct in large part by a minute examination of Mr. Endicott's papers, and although there is no evidence about the original size and extent of the hoard, it is clear from Mr. Endicott's account book that he was attempting to secure a representative selection. The known coins are fairly evenly spread over the period from 180 to 240 A.D., but all except the very earliest are in practically mint condition. Hoards like this suggest that in Greek hoards, where coins do not have dates inscribed upon them, fine condition should not be accepted so

¹ Edward Newell, "Alexander Hoards, Demanhur, 1905," *Numismatic Notes and Monographs*, No. 19, New York, 1923. Newell, on p. 12, pays a warm tribute both to Endicott and Storrs.

² The discovery was communicated to, and published by, Newell—"Nikokles, King of Paphos," *Num. Chron.* 1919, p. 64-5. It is specially interesting as confirming Newell's earlier (1915) assignation of the Alexander tetradrachms carrying the monogram to the mint of Paphos. Proof of the meaning of monograms is rare, and welcome.

readily as it sometimes is as evidence that a coin is among the latest in the group.

A few very minor criticisms may be made: the attempts to represent the actual shape of the letters (ATEM in no. 2 and in no. 11) are so inaccurate that it would have been less misleading to use ordinary Greek type. The monograms are also occasionally inaccurately represented—e.g. those on coin 69. In general, the book is clear, careful and unpretentious; there should be more such publications of small private collections.

LT. COM. WILLIAM WALLACE

NAVAL INTELLIGENCE

NAVAL H.Q., OTTAWA

ITALIC TOMB GROUPS IN THE UNIVERSITY MUSEUM, by *Edith Hall Dohan*. Pp. viii+113, pls. 55. University of Pennsylvania Press, Philadelphia, 1942. \$7.50.

Excavations in the field must be sometimes supplemented by excavations in museums. In Italy, this method has been pursued with success by H. M. R. Leopold, A. Minto, and G. Säflund; it could be carried much further. The storerooms of Villa Giulia, the re-arranged Museo Topografico in Florence, and, indeed, almost all local museums of Italy contain unpublished tombs. In this country, opportunities for museum digging in Italian archaeology are much more limited; normally, isolated objects rather than tomb groups have been purchased. The University Museum in Philadelphia is among the few American institutions which have secured tomb-groups from Italian sites. It is logical that the contents of these tombs should be published in the form of an excavation report rather than in the form of a museum catalogue. Mrs. Dohan has succeeded in reconstructing the contents of twenty-nine tombs from the notes, sketches, and photographs of the Italian excavators and from the notes and inventories of A. L. Frothingham, who purchased these tombs for the Museum. A few objects are assigned to their tombs on the basis of evidence that may not be entirely conclusive, but the bulk of the material is quite well authenticated. Only one vase, the Etrusco-Corinthian scyphus, pl. 47, 17, seems out of place in its context; otherwise, the reconstructed contents of these tombs look as consistent as those of any Italic tombs found in officially recorded excavations.

Of the tombs published by Mrs. Dohan six are from Vulci, one from Pitigliano, and twenty-two from the important Faliscan site of Narce. A

novel method of publication is adopted: first the location and type of the tomb are described; then the contents of the tomb; but the comparative material and bibliography for the individual objects are appended in a separate paragraph in which the entries are numbered to agree with the preceding catalogue of objects.

Mrs. Dohan bestowed exemplary care upon the scrutiny of every object found in the tombs. She succeeded in explaining the purpose of many a puzzling piece and made many excellent observations on the techniques, shapes, and ornaments of pottery and bronze-work (p. 10, ornaments on wicker-helmets; pp. 22, 24, 37, shield pendants; p. 51, iron-tire of a wheel; p. 35, bronze coils; pp. 23, 72, 97, spits and supports for spits).

Among the vases, the painted "vase-carriers" (*hypocrateria*), adorned with friezes of ducks, of dancing women, and of riders, and with groups of men standing between horses are of particular interest (p. 63, fig. 38, pl. 33, pls. 35, 3 and 36, 3). An amphora and a pyxis which display hanging palmettes (*Narce* i, pp. 59 ff., pl. 29) are assigned to a workshop (cf. *MonAnt.* iv, col. 502, no. 25 and 283, fig. 137) imitating Proto-Attic pottery. Mrs. Dohan's discovery of Proto-Attic influence is important and deserves to be tested in other Etruscan crafts. There are excellent surveys of several vase-shapes. (*hypocrateria* p. 20, *protolydia*, p. 13 and *passim*, painted Geometric scyphi, p. 29, jars with vertical handles, p. 40, and many others) and a number of learned observations on various Geometric and Orientalizing motifs.

Among the tombs published, the Faliscan groups make the most important contribution to our knowledge. For a long time we have lacked illustrations of Faliscan material adequate for a stylistic analysis of pottery. The extensive, though not always trustworthy, excavations of the late nineties published in *MonAnt.* iv, and the scattered reports in the *Notizie* were illustrated with drawings which cannot meet modern requirements. A few photographs have been published here and there; a good selection of vase types was reproduced in Mrs. L. A. Holland's, *The Faliscans in Prehistoric Times* (*Papers AAR.* v, 1925). Yet the development of Faliscan shapes and design can be successfully studied only with the aid of complete illustrations such as have been provided by Mrs. Dohan. And for the simple types of pottery in which the character of clay and surface is the most distinctive trait, Mrs. Dohan's thorough technical descriptions are of greatest importance.

Thus, in more than one sense, Mrs. Dohan's publication contributes toward a better understanding of Italian regionalism.

The material culture of regions, provinces, and smaller areas of Italy has always been one of great variety. This is also true of the Iron Age and the early historical era, and archaeologists have successfully localized certain types of bronzes, vases, fibulae in the different regions. This was done largely with the aid of the typological method, which worked well as long as it was applied to objects with distinctive characteristics. But so far relatively few types have been localized; if we desire to attain a more complete picture of the development of crafts in the various communities and regions of early Italy, we must extend and intensify our typological studies and supplement them with other methods. Thus a stylistic analysis of the designs may lead us to recognize local schools and workshops, and a technical analysis of clay, surface, and paints may establish affinities in plain wares with common shapes where typology and study of designs fail. The Faliscan culture is a case in point. Its archaeological remains have been admirably surveyed by Mrs. Holland in the work cited, and her observations on the general affinity between the Faliscan and the Latin-South Etruscan material have been helpfully supplemented by Mrs. Ryberg (*An Archaeological Record of Rome*, Philadelphia, 1940). Yet a considerable number of objects found in Faliscan tombs have not been sufficiently studied and it remains uncertain whether they are of local or foreign origin.

For all these questions answers can be provided if future excavators of Central Italy will strive to equal Mrs. Dohan's conscientious presentation of material. There is a further point in favor of publishing every object found in a tomb. The quantitative ratio between local and imported objects determines to a considerable extent the character of a culture; but this ratio can be observed only if all objects are carefully described and illustrated. Take again the Faliscans. Mrs. Dohan's book confirms the suspicion that non-Italian objects possessed by the Faliscans were few and not of high order: some Egyptian figurines and beads, a paste seal showing a sphinx (pl. 22, 41), and only two genuine Greek vases (pl. 30, 34a, Proto-corinthian; pl. 41, 20, black figure). It would seem that only small articles from overseas reached Falerii. All jewelry looks Etruscan; Etruscan are also the Orientalizing shield (pl. 26, 23) and the

"Villanovan" cuirass and helmet. This leaves the bulk of pottery and smaller bronzes as distinctly local products.

We must keep in mind this paucity of Greek and Oriental objects when we speak about Greek and Oriental influence upon the Faliscan crafts. In strictly local products of the Faliscans we do not find the close imitation of foreign objects that marks the products of the Etruscan coastal cities. One might, indeed, divide the "Faliscan" vases into varieties common to Southern Etruria, Latium, and the *ager Faliscus*, and those specifically Faliscan. In the former group belong the *anforetta laziale*, the petaled vases and phialae, some Italo-Geometric vases, and all of Italo-Corinthian pottery.¹

In the strictly local group we must probably include painted wares with un-Greek shapes (pl. 8, 6, 9; 9, 2; 12, 1, 3, 9, 10, 11; 18, 1, 2, 3; 21, 1, 3, 4). The "Suspended Palmette" group (p. 60 f.), which Mrs. Dohan rightly connected with the "Boneless Bird and Animal Vases," may be either Faliscan or Veian (pls. 29, 3; 30, 4; 30, 5; 31, 6-7). Local Faliscan are the vases painted with white-on-red or -brown, of which the vase-carrier with a rider frieze (pl. 33) is the most ambitious effort; and the related white or cream slipped vases (vase-carrier, pl. 35). Incised pottery with rosettes, spirals, hanging chains and other simple ornaments may again be Veian or Faliscan; but the vases with more elaborate, fantastic incised designs are definitely Faliscan. The charming amphora decorated with the incised figure of a horse is the only important example in Philadelphia; a fine series from Poggio Sommavilla has been recently illustrated in *CVA*. Denmark, pls. 197-201. Here, for once, the Faliscans are refreshingly independent. They take Greek and Oriental motifs which they remember but imperfectly and break these designs into angular contortions and linear patterns. Orientalizing monsters tumble amidst spirals, birds' heads, birds, and disembodied palmettes and rosettes. The resultant decorative style is loose, if compared to Etruscan Orientalizing decoration, but has the charm of true folk art. Its dynamic whirls and its floating figures are unique among the local styles of Early Italy.

It was fated that the book which is reviewed

¹ Some Italo-Geometric vases (pls. 14, 15-21; 12, 11-14; 17, 8; 18, 4; 21, 2, 5, 6, 7, 8, 9) are much closer to Greek than other painted Geometric wares. They are certainly not Faliscan.

here was to be the last scholarly effort of Mrs. Dohan's distinguished career. Hence it seems to me fitting to end with a tribute to the memory of the author.

In a measure, the book reflects Mrs. Dohan's personality. The decision to tackle such recalcitrant material as stray Italic tombs grew out of a deep sense of responsibility for the collection that had been entrusted to her care, out of a firm belief in the scholar's duty to save the records of the past from oblivion and destruction. With characteristic energy Mrs. Dohan set out to become an expert in a field new to her. She made a special trip to Italy to gather comparisons and information. It was instinctive with her to go to the objects first. She saw archaeological pieces as real things that had been used by real people; hence her ability to solve the technical and practical problems of even the smallest things of ancient daily use. But beyond that, Mrs. Dohan had a keen power of observation which enabled her to grasp the individual quality of works of art; thus she recognized unerringly the individual hands of Greek vase painters. Lucid thought, straightforward argument, clear organization are other qualities that appear in her last book.

But neither this book nor any other publication could fully indicate the inspiration that Mrs. Dohan was to many of her colleagues. The secret of this inspiration lay in the unique balance of vigorous active life and enthusiastic scholarship. With equal competence Mrs. Dohan attended to the scholarly pursuits of research and museum work, to the affairs of business and civic life, to the management of her rural estate. She was a gracious and generous hostess whose home was representative of the best American traditions. And of the fullness of her life she gave unstintingly: one could not meet her as a scholar without becoming a devoted friend.

GEORGE M. A. HANFMANN

HARVARD UNIVERSITY

(On Leave)

NEWPORT TOWER, by *Philip Ainsworth Means*. Pp. xxi(3)+344, with an Introduction by *Vilhjalmur Stefánsson*, a Frontispiece, 141 ills. Henry Holt & Company, New York, 1942. \$5.00.

When Dr. Thomas H. Webb, secretary of the Rhode Island Historical Society, in a letter dated May 22, 1839, to C. C. Rafn, secretary of the Royal Society of Northern Antiquaries at Copenhagen, gave a description of the "Old Stone Mill" or the Newport Tower, he started a ball rolling

that has been going lustily ever since, or for more than a century now.

Rafn, having already mistaken the inscription of Dighton Rock for runic, decided that the tower was the ruin of a twelfth-century Scandinavian Church. This is the Norse theory of the origin of the tower, and it has since been held by many writers, good, bad, or indifferent, including Mr. Means. But it is definitely rejected by others, who hold that the tower was originally a windmill, built by Governor Benedict Arnold of Newport to replace a wooden mill which had been destroyed in a storm of 1675. In his will of December 24, 1677 the Governor actually twice refers to "my stone-built wind-mill," this being the earliest reference to the structure, and it is from this incontrovertible evidence that the so-called Arnoldists jump to the not too far-fetched conclusion that the Governor built the mill.

And why then, considering the explicit statement of the will, should the origin of the mill be a problem? Mr. Means proceeds to show that in great detail, after having traced in still greater detail the century-old controversy.

Briefly, Means's arguments are that Governor Arnold could not have built the structure because he had no such prototype to follow. He demolishes the usual statements of the Arnoldists that Arnold had, as a youth in Warwickshire, been familiar with a similar wind-mill, designed by Inigo Jones for Sir Edward Peyto, Lord of the Manor of Chesterton. That structure, Mr. Means tells us, was, in the first place, not a wind-mill, and, in the second place, Arnold did not hail from Warwickshire at all, but from Somersetshire.

Surveying the wind-mills in England, Holland, France, Canada, and, to some extent, the West Indies, Means denies that such a structure was ever found. Unfortunately, by his own admission he does not know much about wind-mills in New England, but presumably there are no such tower wind-mills there. Though different, the sugar-mills of the West Indies come, perhaps, nearest to some similarity with the tower, but Means assures us that Arnold was never in the West Indies. But perhaps there were New England traders there?

Besides this amazing lack of prototypes in the wind-mill field, the tower has one feature which Means does not expect in a wind-mill: a fireplace in the mill house itself. To be sure fireplaces are found in wind-mills in France and in Canada, but always on the ground floor, below the mill house itself. In the mill house it would seem to be a de-

cided fire hazard. Yet, given the peculiar structure of the tower, where could a fireplace be put except on the second floor?

In view of these difficulties Means prefers Rafn's theory that the building is the central part of a round church, of a type ultimately derived from the Church of the Holy Sepulchre in Jerusalem. A well known church of this type is found in Cambridge, England, and there are several of them in Denmark, Sweden, and Norway. The similarity in design between the tower and some of these churches seems at least great enough to admit of a possible connection. Furthermore, after a laborious search in the Old Icelandic sources Means agrees with Rafn that the most likely builder of the church was Eric Gnúpsson, bishop of Garðar in Greenland (ca. 1112-1120). He does not admit H. R. Holand's claim that it might have been built by Poul Knutson in the fourteenth century, but in a footnote to p. 227 he does admit that it is probably later than 1250 (and then hardly the work of Eric Gnúpsson?). What this

means, of course, is that the historical material is too flimsy to admit of any solution.

But if the structure were actually a Norse church, it ought to be easy enough to prove it. Not only should one be able to find the expected foundation of a surrounding wall by a little digging, but one should also expect to find the graveyard of the faithful who erected such an elaborate structure (whose like is found neither in Iceland nor in Greenland!). Mr. Means suggests this himself, but he does not have much hope of accomplishing it, for, alas, the Newport citizens are all stout Arnoldists. The next thing on the agenda seems, then, to be to convince them that by digging they will by one fell stroke and once and for all bring all Norse theories out of the world.

That would undoubtedly save much money as it would be a contribution to knowledge, but it would deprive us of another century of delightful controversy.

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ABBREVIATIONS

The following abbreviations of the titles of publications will be used in the *JOURNAL*, other titles being uniformly abbreviated:

- AA*: Archäologischer Anzeiger.
- AASOR*: Annual of the American Schools of Oriental Research.
- AASPR*: Annual of the American School of Prehistoric Research.
- ABA*: Abhandlungen der Preussischen Akademie der Wissenschaften, Berlin.
- ActaA*: Acta Archaeologica.
- AdI*: Annali dell' Instituto.
- AEM*: Archäologisch-epigraphische Mitteilung.
- AJ*: Antiquaries' Journal.
- AJA*: American Journal of Archaeology.
- AJN*: American Journal of Numismatics.
- AJP*: American Journal of Philology.
- AJSL*: American Journal of Semitic Languages.
- AM*: Athenische Mitteilungen.
- Annuario*: Annuario della R. Scuola Archeologica di Atene.
- AntDenk*: Antike Denkmäler.
- AOF*: Archiv für Orientforschung.
- ARW*: Archiv für Religionswissenschaft.
- AV*: Gerhard, Auserlesene Vasenbilder.
- AZ*: Archäologische Zeitung.
- BASOR*: Bulletin of the American Schools of Oriental Research.
- BASPR*: Bulletin of the American School of Prehistoric Research.
- BCH*: Bulletin de Correspondance Hellénique.
- BdA*: Bollettino d'Arte.
- BdI*: Bulletino dell' Instituto.
- BFM*: Bulletin of the Fogg Museum.
- BIAB*: Bulletin de l'Institut Archéologique Bulgare.
- BJ*: Bursian's Jahresbericht.
- BLund*: Bulletin de la Société Royale de Lettres de Lund.
- BMFA*: Bulletin of the Museum of Fine Arts, Boston.
- BMFEA*: Bulletin of the Museum of Far Eastern Antiquities.
- BMA*: Bulletin of the Metropolitan Museum of Art, New York.
- BMQ*: British Museum Quarterly.
- BPI*: Bulletino di Paleontologia Italiana.
- BrBr*: Brunn-Bruckmann, Denkmäler.
- BRGK*: Berichte der Römisch-Germanischen Kommission des Deutsch. Arch. Instituts.
- BRISD*: Bulletin of the Rhode Island School of Design.
- BSA*: Annual of the British School at Athens.
- BSR*: Papers of the British School at Rome.
- BullComm*: Bulletino della Commissione Archaeologica Comunale di Roma.
- BZ*: Byzantinische Zeitschrift.
- CAH*: Cambridge Ancient History.
- CIL*: Corpus Inscriptionum Latinarum.
- CP*: Classic Philology.
- CQ*: Classical Quarterly.
- CR*: Classical Review.
- CRAI*: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres.
- CVA*: Corpus Vasorum Antiquorum.
- CW*: Classical Weekly.
- Δελτ*: 'Αρχαιολογικὸν Δελτίον.
- DLZ*: Deutsche Literaturzeitung.
- Εφ*: 'Αρχαιολογικὴ Ἐφημερίς.

- FR*: Furtwängler-Reichhold, Griechische Vasenmalerei.
FuF: Forschungen und Fortschritte.
GBA: Gazette des Beaux-Arts.
GGA: Göttingische Gelehrte Anzeigen.
HarvSt: Harvard Studies in Classical Philology.
IG: Inscriptiones Graecae.
ILN: Illustrated London News.
JAOS: Journal of the American Oriental Society.
JdI: Jahrbuch d.k.d. Archäologischen Instituts.
JEA: Journal of Egyptian Archaeology.
JHS: Journal of Hellenic Studies.
JOAI: Jahreshefte des Oesterreichischen Archäologischen Instituts.
JPOS: Journal of the Palestine Oriental Society.
JRAI: Journal of the Royal Anthropological Institute.
JRAS: Journal of the Royal Asiatic Society.
JRS: Journal of Roman Studies.
LAAA: Liverpool Annals of Archaeology and Anthropology.
MAAR: Memoirs of the American Academy in Rome.
MDOG: Mitteilungen der Deutschen Orient-Gesellschaft.
Mel: Mélanges d'Archéologie et d'Histoire.
MJ: Museum Journal of the University of Pennsylvania.
MonAnt: Monumenti Antichi.
MonInst: Monumenti dell'Istituto.
MonPiot: Monuments et Mémoires pub. par l'Acad. des Incriptions (Fondation Piot).
MJb: Münchner Jahrbuch der bildenden Kunst.
NJ: Neue Jahrbücher für das klassische Altertum.
NNM: Numismatic Notes and Monographs.
NS: Notizie degli Scavi di Antichità.
NumChron: Numismatic Chronicle.
NZ: Numismatische Zeitschrift.
OIC: Oriental Institute Communications.
OIP: Oriental Institute Publications.
OLZ: Orientalistische Literaturzeitung.
PAPS: Proceedings of the American Philosophical Society.
PEF: Palestine Exploration Fund Annual.
PEFQ: Palestine Exploration Fund Quarterly Statement.
PM: Evans, Palace of Minos.
PPS: Proceedings of the Prehistoric Society.
PQ: Philological Quarterly.
Πρακτ.: Πρακτικά τῆς Ἀρχαιολογικῆς Ἑταιρίας.
PW: Philologische Wochenschrift.
PZ: Prähistorische Zeitschrift.
QDAP: Quarterly of the Department of Antiquities in Palestine.
RA: Revue Archéologique.
RB: Revue Biblique.
RE: Pauly-Wissowa-Kroll, Real-Encyklopädie der Klassischen Wissenschaft.
REA: Revue des Études Anciennes.
REG: Revue des Études Grecques.
RendLinc: Rendiconti della Reale Accademia dei Lincei.
REp: Revue Épigraphique.
RevNum: Revue Numismatique.
RevPhil: Revue de Philologie.
RHA: Revue Hittite et Asianique.
RhM: Rheinisches Museum.
RivFil: Rivista di Filologia.
RM: Römische Mitteilungen.
SBA: Sitzungsberichte der Berliner Akademie.
SCIMC: Short Communications of the Institute of Material Culture, U.S.S.R.

SEG: Supplementum Epigraphicum Graecum.

SIG: Dittenberger, Sylloge Inscriptionum Graecarum.

SO: Symbolae Osloenses.

StEtr: Studi Etruschi.

TAPA: Transactions of the American Philological Association.

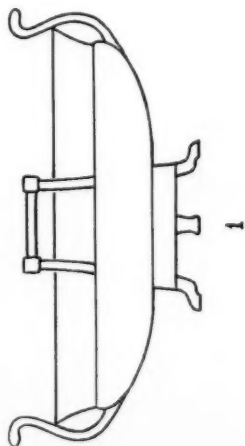
WS: Wiener Studien.

WV: Wiener Vorlegeblätter.

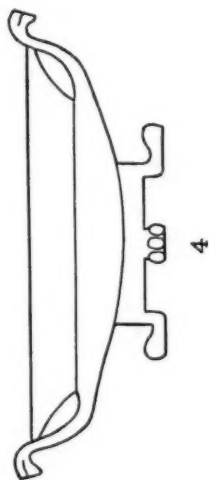
ZDMG: Zeitschrift der Deutschen Morgenländischen Gesellschaft.

ZfE: Zeitschrift für Ethnologie.

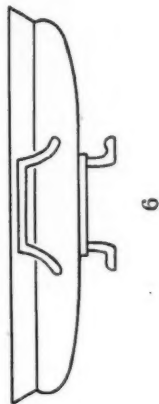
ZfN: Zeitschrift für Numismatik.



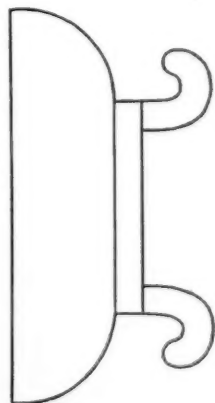
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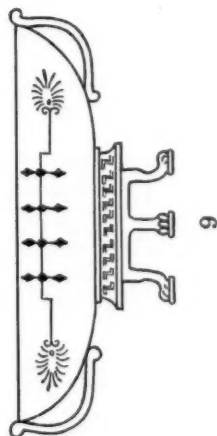
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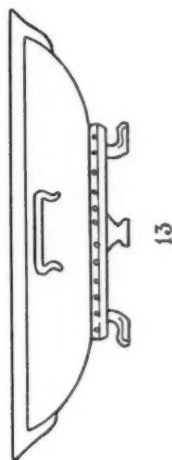
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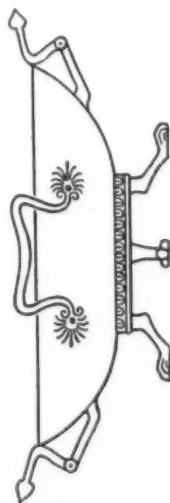
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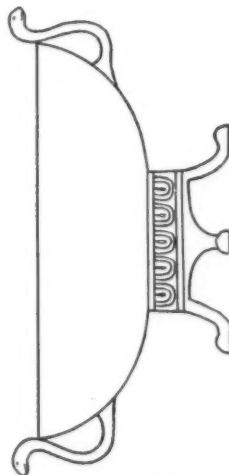
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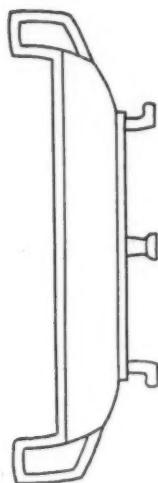
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PLATE I.—FOOTBATHS OF CLASS I APPEARING ON VASES OF THE SIXTH AND FIFTH CENTURIES B.C. DRAWN BY LINDSLEY F. HALL (THE NUMBERS REFER TO LIST B)

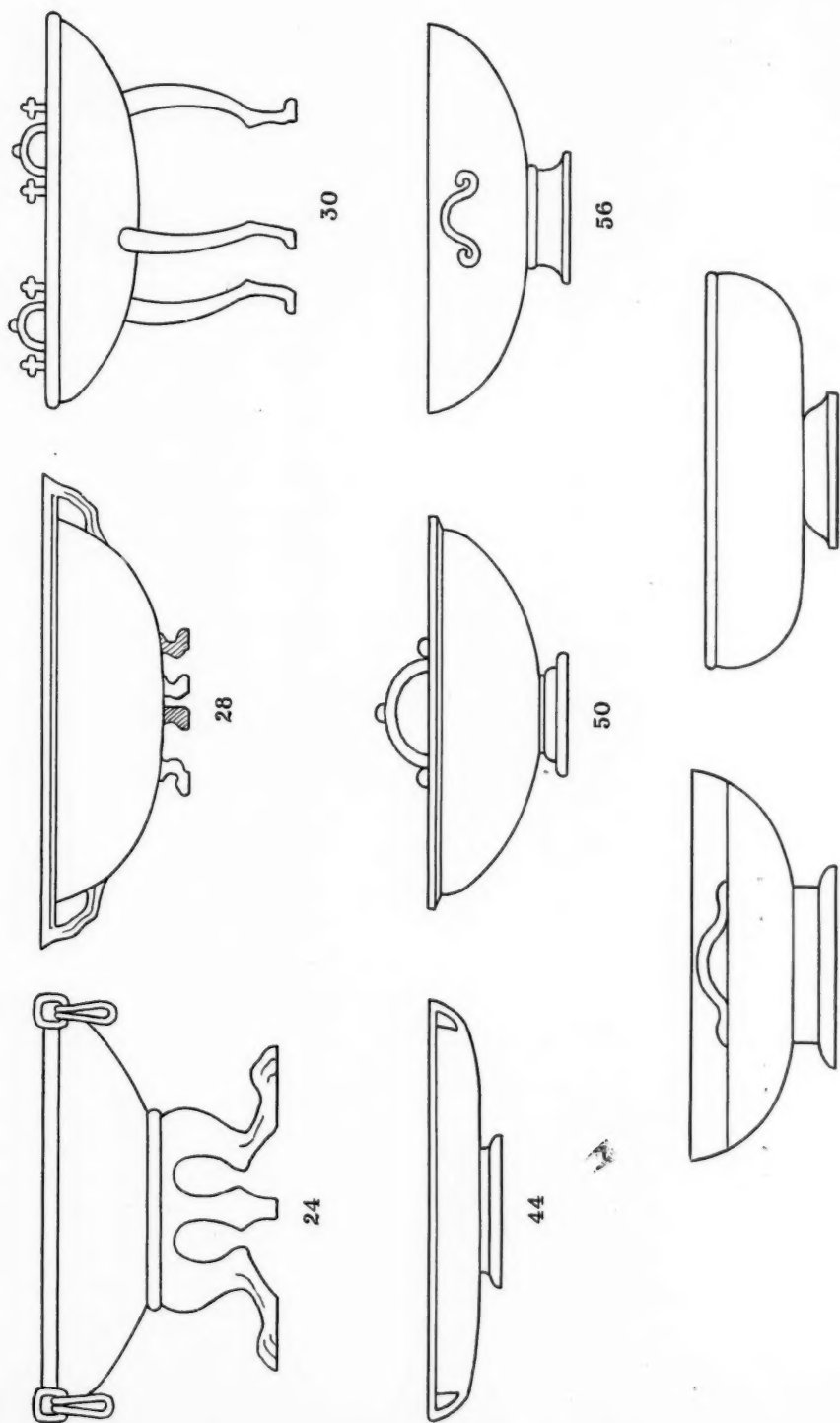


PLATE II. — FOOTBATHS OF CLASSES I, II, AND III APPEARING ON A LATE ARCHAIC ETRUSCAN RELIEF (NO. 24), ON AN ENGRAVED MIRROR OF THE FOURTH CENTURY (NO. 56) AND ON ATTIC AND SOUTH ITALIAN VASES, DRAWN BY LINDSLEY F. HALL. (THE NUMBERS REFER TO LIST B)